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WHAT CAN A YOUNG MAN DO?

What Can a Young Man Do?

By
Frank West Rollins

Boston
Little, Brown, and Company
1917

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PREFACE

I AM frequently asked the question "What can a young man do?" A year ago I tried to answer the question briefly in an article in the New York Independent. After it appeared, I was requested by a publishing house to write a book on the subject, which I have endeavored to do. At some period of a man's life this question becomes insistent and for some men the answer is very difficult. I have maintained that there are more opportunities for a young man today than there were in former times, notwithstanding that it is often said that there is no chance for a young man to get ahead nowadays. I have tried, in this book, to present the advantages as well as the drawbacks of a large number of the professions and a number of the callings and trades, and have attempted to bring out the attractive features of several callings which are not generally considered by young men when they are looking about to select their business in life. It frequently happens that the course of a man's life turns upon some suggestion, some unexpected meeting, the reading of a book or the listening to a

lecture, and I am hoping that this book will prove a source of suggestion at least, to many young men.

In writing upon so many and such varied subjects I have, of course, been obliged to seek the assistance of specialists in various departments and I wish to acknowledge my obligation to those who have so kindly helped me.

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WHAT CAN A YOUNG MAN DO?

I

TO PARENTS

"These pressing, these insistent, these life-and-death problems of making every boy and girl — physically, mentally, industrially, socially and morally — into the best man and woman possible are not academic questions to be discussed in doctors' theses. They are your business and mine, to be seriously undertaken here and now."

MANY people think they do their whole duty if they clothe and feed their children, and send them to school on week days and to church on Sundays. It never dawns upon them that they have any responsibility for shaping the child's proclivities. They are unconscious of any duties beyond those mentioned, and the child grows to maturity in a haphazard, happy-go-lucky way, without any direction, supervision, suggestion, or outward help. No attempt whatever is made to study the child's possibilities, his points of weakness, mental or physical, or his elements of

strength. The wonder is that so many come to maturity at all, and that so many really good men and women are evolved from such unscientific processes.

The training of a child could almost begin before birth, for he is moderately certain to inherit nearly all the faults and weaknesses of the father and mother, while he may inherit some of the good qualities. So the parents, knowing their own weaknesses, can prepare to guard against them in the child, and knowing their own good points, can prepare to nurture any shoots of goodness the child may send out and to support the tender fibers till they become strong and vigorous.

Deep impressions can be made upon the plastic mind of a child at a very early age. Even in babyhood lessons of self-reliance, obedience, fearlessness, and persistence can be enforced. These will be great qualities to serve as a foundation in the struggle of life.

As the child grows older, teach him to do light work. Give him simple but regular duties to perform. Don't interfere with his play, but let him have some stated work, if it is no more than feeding the chickens, bringing in wood, or mowing the lawn. Cultivate his sense of responsibility for something. If children can be given an opportunity to work for their pocket money it trains them wonderfully. This is the great advantage

the poor have over the rich or well-to-do: the children of the former are obliged at an early age to learn to work, and it trains and strengthens them both physically and mentally.

When a boy reaches the school age I would put him into the first grade. I would pass over the kindergarten period. Kindergartens, I suppose, are of advantage in large cities for certain children, but as a general proposition I think it is better for the child to play out of doors and get vigorous and strong physically, using the kindergarten period for that purpose, and beginning the actual work of study in the first grade. It is, in my judgment, a good rule except in certain sections of large cities where the child has no opportunity to play out doors or where the parents are not able to watch them. The criticism is frequently made nowadays — "fundamentals are not thoroughly taught." I think there is a great deal in this charge. My observation leads me to the conclusion that the boys of our day do not know their grammar or their arithmetic as well as their grandfathers did. This is brought to my attention in studying the work of stenographers who are the product of our public schools; in applicants for positions; and in general correspondence. There is a shiftlessness, lack of certainty and of precision and knowledge of spelling, and inability to construct sentences

and to add, subtract, multiply and divide. Good handwriting is exceedingly rare. Men who are competent to judge tell me that their explanation of this situation is that Latin and algebra and such studies as were formerly taught in the high schools only have been introduced into the upper grades of the grammar schools and the time formerly given to the careful teaching of the studies I have mentioned is given to teaching the rudiments of Latin and algebra. The time is practically wasted provided the boy does not go any farther than the grammar school.

These youths know a little of many things. They can tell a pistil from a stamen; can imperfectly translate a French quotation; can tell how many bones there are in the human hand; can tell who composed the Götterdämmerung; but to save their souls they cannot write a business letter in a good hand and in clear grammatical English, nor figure the interest on a bond at 6 per cent. for 3 months and 4 days. The ability to do these things should be the test of a good common school education.

Don't send the child to school too early. Nothing is gained. Let him play in the dirt, roll in the grass, sing, cry, shout, expand his lungs, get his muscles working, his powers of observation developed. Above all, let him have plenty of children of his own age to play with. What is

more pathetic than the well-dressed, stiffly-starched, clean little fellow standing all alone on the immaculate lawn, looking out wistfully at the dirty but happy children of the street at their games? To restrict children to this fearful isolation is refined cruelty.

Five years old is early enough to send a boy to school. Then put him in the public school but not in a kindergarten. Let him come in contact with all sorts and conditions of children. It will not hurt nor contaminate him, and he is likely to get some useful lessons. If he is selfish he will become more generous; if he is a coward he will be made more brave; if he is a bully he will find his match; but above all, he will be in a pure democracy, where he will be weighed with the most delicate scales, and get exact justice for all his virtues, and the finger of scorn pointed at his vices. No allowance will be made on account of the wealth or social standing of his family. He will be put on his mettle, and will find his level.

Much can be done to influence the child in the right direction. Always keep in mind your own weaknesses and try to guard against them. Children are exceptionally keen. They see everything, hear everything. The change of an eyelash, the inflection of a syllable, are all stored up to be used at some future time. Remember that father and mother are the two greatest and most

important people in the world to the little one, and then you will feel your responsibility. Don't overdo the training; don't nag the child; don't fire precepts and parables at him, — rather lead him by suggestion and example. Make his childhood merry and happy; let him look back on that period as the golden age. Read aloud to him; make the best literature attractive, and have plenty of it lying about, — not the pap commonly fed out to children, but the works of Dickens, Scott, Cooper, Hugo, Dana, DeFoe, Kingsley, and others of the same stamp.

Help him to form early, if possible, the habit of reading and of concentration. Get him to tell you the story he has just read so as to fasten it in his mind. Discuss the characters. Tell him stories yourself, and don't let them be too infantile.

Watch his playmates. Cut out, if possible, the snob, the nasty and degenerate boy, but let him play with real boys with real blood in their veins, — the poorer, the better.

One of the best things you can do for a boy is to give him a printing press. When I was about fourteen, the great craze for amateur printing spread through the country. I was badly affected and at last my father bought me a complete outfit, — press, type, and all. I think the day it arrived was one of the happiest of my life. I at once set up a printing office, did job work, and published

an amateur paper of which I, with two friends, was editor, proprietor, and compositor. For two winters we put in all of our spare time out of school, evenings included, in writing, setting type, and printing. It was great fun and splendidly educating in a hundred ways. There were in those days many such amateur papers and we had our exchanges, rates for advertising, etc. I learned to set type very well and know the case to-day, and the experience thus obtained has since helped me out of many a tight place in spelling and punctuation.

When the boy has passed through the lower grades of school, if he is the son of well-to-do parents, the question will arise with them, — what next? Shall we send him to a preparatory school or keep him in the public schools? My advice is to keep him in the public schools as long as possible, for the following reasons: first, they give a better fit for college as a rule than the preparatory schools; second, he will be less likely to become a snob; third, the public schools are more American and better adapted to the genius of our people; fourth, they are co-educational, and up to a certain age it is better for boys to be thrown more or less with girls; fifth, it keeps him at home with his parents where he ought to be until he is seventeen or eighteen years old.

If the boy is an only child he *must* be sent away

to a preparatory school or be coddled to death. There is no alternative. The only child who is thus forced to be sent away is to be pitied because he is deprived for the best part of his youth of close companionship with his parents. It is customary, however, with some of our very rich people, to send children to preparatory schools simply to get them out of the way so that the parents may live their own selfish lives untrammeled. I have been present and seen little boys stand by when other boys were visited by loving mothers, and I have seen the tears well up in their eyes and an expression on their faces that was not good to look upon. I know cases where the unfortunate boys are not allowed to go home at Christmas, Easter, or even in the long summer vacation. Our summer camps are full of little chaps whose mothers and fathers are gallivanting about Europe, or living superheated lives at Newport, Lenox, or Bar Harbor, with no thought for the longing of their little ones for the good-night kiss. What are such parents made of? What account will they give some day for their wasted lives, or for the sins of their children?

With many boys, graduation from the grammar school becomes the turning point in their lives, for then the question arises whether they shall continue their studies or go to work. This question, of course, arises most frequently with the poorer

people, — those who do not expect to send their sons to college. They debate whether they can afford to support their boy through the high school, or whether he must become a breadwinner at once. I think many mistakes are made right here. It is the tendency of our people to think that education can do everything, — I mean a school education. So many of our older people had but a poor education, or none at all, that they determine their children shall have the best, and they work and stint and starve and save to give some boy, — frequently undeserving, — an education which completely unfits him for the life he must perforce lead. It is all a question of material, and what endless trouble and suffering would be saved if there were only some omniscient judge to examine each boy and say — you go to the high school; you go to college; you go to a technical school; you learn a trade. How much power is lost by being in the wrong hands! Go into one of our high schools, or one of our preparatory schools, for the same rule applies there, and study the faces of the children. You can often tell where an education is being wasted, where precious years could be better spent in other ways. It sometimes seems to me that instead of not enough education in these United States of America, we have too much, or rather, that it is too promiscuous, too poorly directed, and badly applied. I

am glad to see an effort here and there to start trade schools, for many of the boys who fritter away four years in a high school might be made useful citizens by a course in a trade school.

Give the average girl of poor parents a high school education and she scorns anything but standing behind a counter or teaching. She holds up her hands at the idea of domestic service. The idea of her soiling her hands! And take the boy who had it in him to make a good blacksmith like his father and grandfather before him. Does he want to handle horses' feet? Not much! He prefers to wear good clothes and be a floor walker, or study law and become a poor attorney. I do not wish to be misunderstood. It is legitimate for everyone to wish to rise in the scale of civilization, but such cases are not instances of rising. I am striking at the misfits, pointing out where a little direction or advice would save miserable mistakes and lifelong regrets. It is better for society, and for the girls and boys that they should become successful dressmakers rather than incompetent teachers, first-rate blacksmiths rather than ward politicians. Fully half of the children in our high schools would be better off and better fitted for life if they were taught a trade. Our mechanics are well paid and independent. In many places domestic service is cleanly and wholesome. It is the idea of service at all that galls.

I hope to see this changed, for we are slowly learning that after all the happy life is the life of service.

Study the boy and see what possibilities he has in him, and if you have not the faculty of deciding whether he should become a mechanic, a business man, or a professional man, consult some one who deals with such problems. Of course at the grammar school age the child's character is unformed, and it is difficult to determine what is best for him, but consider heredity, and take an inventory of your own abilities and judge whether you — provided you had been properly educated — could have become what you desire your boy to be. He is probably but a miniature of yourself.

Above all, see that he starts with a sound body. Give him plenty of wholesome food, fresh air, and exercise. Teach him to swim, to row, to skate, and to dance. Keep candy in the background; and never let him have tea or coffee. Watch out for cigarettes and vicious habits. This is a big undertaking, but you can accomplish it.

If you find it necessary to send him to a preparatory school instead of the high school, choose the school with great care. If you are a man of moderate means, try to get him into one of the well-endowed schools, patronized by rich boys, by means of a scholarship which most such schools have. He will be thrown among a lot of boys brought up in a different atmosphere; he will make some

acquaintances useful to him in after life; he will probably take a high stand because more accustomed to work than the rest, and he will help to leaven the lump. If you are a rich man, send him to one of the schools where most of the students come from poor and more democratic families. It will knock some of the snobbishness out of him, teach him that success comes from work and industry, and does not depend upon wealth, and give him an altogether new view of life. I should suggest for the poor boy, — St. Paul's, St. Mark's, Groton, Hill, etc.; for the rich boy, — Phillips Exeter, Phillips Andover, etc. I have used as examples only eastern schools with which I am familiar. But, if possible, keep the boy at home under your own roof where you can watch him and be his companion, and let him attend the public schools. As a rule, they give a better fitting for college than the preparatory schools. At least, I am told that the boys from the high schools, who come up for the examinations for college, pass more creditably than those from the preparatory schools. Whether they are better physically I have never learned.

Now, let us suppose the boy has passed through the high school or preparatory school, and that it is intended to educate him further. Here again is a crucial moment. Here again the boy's whole life and future success depend upon the wisdom

of the choice. And how little thought is given to it! The choice is either left to the boy himself, or if his father is a college man, the boy is sent to his college. At this point the boy's characteristics and inclinations should be carefully considered, for what folly it is to send a boy with a mind adapted to the study of mathematics and science to get a classical education; and what a pity to try to instil chemistry and conic sections into a boy whose whole soul cries out for literature and the languages.

If a boy has any leaning towards a scientific life he will generally show it early; he will be fond of mathematics, a close student, a keen observer, clever with his hands, fond of machinery. This boy is easy to pick out. His teachers have marked him and the problem is an easy one. He should be sent to the Massachusetts Institute of Technology, Johns Hopkins University, Stevens Institute, Cornell, the Worcester Institute of Technology, or some similar institution.

If a boy shows aptitude for the languages, particularly English, is good in history, writes a good composition, he should be sent to a classical school, and here the choice is so large that one has to halt. There are hundreds of colleges in the United States, to say nothing of many universities. Propinquity and ease of access will settle the question for some, cost for others, and the real standing

of the college, for a few. As far as expense is concerned there is not much difference. Nearly all colleges give their education for much less than its actual cost, but the expense of living differs materially in the various colleges. Yet in nearly all there are plenty of poor boys working their way through, so there is no social stigma placed on the fellow who lives inexpensively. The older, stronger, more heavily endowed, colleges can give the greater opportunities, for they have the means with which to hire the best men as professors, and can also furnish better libraries, museums, laboratories, etc. for the student's use. In this statement I am not pleading the cause of the big college, for I believe the weight of argument is in favor of the small college and closer touch, but it must be admitted that, as far as equipment and opportunity go, the big rich college has the advantage. The English idea of a university made up of several small colleges seems the best for obvious reasons, and I look to see it adopted at Harvard and Yale within ten years. If boys can be brought into close contact with a strong, masterful, compelling man for four years, they will bear his impress for life. What would not close personal contact for four years with a man like Doctor Tucker of Dartmouth do for a boy? I cite him as an example, but there are many others of great influence. The trouble is, each is so absorbed in

the *business* of his college, the mere keeping it going and supplying its pressing needs, that the personal contact is lost. We can all remember some professor whose classes were a delight, whose sayings are still treasured by us, whose memory we revere. Suppose he had been able to give his whole time for four years to you and a little circle of twenty or thirty of your classmates. Ah! you will say, — I should have been a better, a higher-minded, a more successful man.

Some of my friends argue that there is really closer touch today between the students and the teaching force in the large colleges like Harvard and Yale, because they are rich enough to furnish sufficient instructors so that the section, or number of men under each professor, is small, allowing each man to get a goodly share of his attention. Princeton has adopted the English system in a modified form, and the results there will be watched with great interest.

Another advantage of the big college is that there one is more apt to make the acquaintance of men who are certain from their connections to be at the head of great affairs and large undertakings, and, as the friendships thus formed are lifelong, nothing is more natural than for those men, when they have stepped into the niches prepared for them, to remember the dear friends of college days and offer them lucrative positions

and fine opportunities. Many a fellow has in this way found a short cut to success.

It is not of crucial importance what college a boy goes to, for if he really wants an education he can get it at almost any of our best institutions, and if he is there merely to participate in football and billiards, he will find opportunities at even the smallest and most poorly equipped. Of course the standards and ideals vary greatly, but there is a general raising of the standard throughout the country and a nobler effort is being put forth everywhere towards higher ideals and better results. To show how we have advanced in the last fifty years, it is necessary only to point out that the graduates of our preparatory schools are probably more broadly and better educated than were the graduates of colleges fifty years ago. It is doubtful if a graduate of the Harvard of fifty years ago could pass the entrance examination of the Harvard of today.

Try to impress upon the boy about to enter college that he is going there to get an education, not to have a pleasant four years of social intercourse. If you can get into his mind some idea of personal responsibility, it will help. The later a boy goes the better, as a rule, for he will be more mature and less likely to fritter away his opportunities.

When a boy goes away to college and gets his

first taste of freedom, there are always grave chances, as every parent knows. There is no way to guard against them, except by training the boy in a manly way and trying to inculcate good principles and a distaste for low companions. It is folly to try to wring from the boy promises not to do this or that, for, if in a moment of weakness he breaks the promise, he loses his self-respect. Persuasion and a kindly pointing out of the results of dissipation and indulgence are more likely to succeed. The boy should be shown how his whole life and career may be ruined by one night of dissipation and excess; what fearful, lifelong results frequently follow. He should be told, frankly, openly, and without reserve the dangers that lie across his path, and it may do some good. It is no use to preach to him, and no use to scold. His confidence must be gained, and an appeal made to his manhood.

When your boy is in college, my reader, see him as often as possible, write to him frequently, and keep him in touch with home. Let him bring his friends home in vacations, and make it pleasant for him and them. Don't give him too much money, nor be too niggardly. Too little is better than too much. If you have any friends in the town where the college is located, give him letters to them, and arrange to have him get an occasional invitation to dinner. It keeps him from

becoming a savage. If he has any religious leanings, get him in touch with his church, the Y. M. C. A., or the Brotherhood of St. Andrew. Don't nag him; don't spy on him; don't try to require minute accounts of his comings and goings or of his expenditures. Let him know you have confidence in him and in his honor. There is good in every boy, — a chord that will ring true if you touch it with sympathetic fingers.

The average parent is always highly elated whenever his child is able to skip a class in school. I am inclined to regard a performance of this kind as a mistake. Rapid growth usually savors of rankness in plant life and I doubt if it is wholesome in human mentality. The conventional mode at the present day is to hurry through the high school as quickly as possible, and then through college, regardless of the ultimate business or profession a boy proposes to select for his life's work.

All education is but an elementary affair — a foundation on which to build a structure the excellence of which will depend largely on the mind and ability and especially the energy, interest, and concentration with which a boy enters upon his work. I believe that a boy in the earlier period of his life will more permanently retain things that he has learned to do by physical means, or with his hands, than by mental means, or with

his brain. I also believe that a boy entering college at twenty years of age, being more mature in mind and experience, will learn more and better understand his studies, as well as their object, than he would entering at the age of seventeen.

Many miss their calling. Circumstances and conditions frequently prevent the potential or latent qualifications of a boy ever being revealed, and therefore, it is of as much importance for a boy to select that course for which he has a natural aptitude, as it is to develop his faculties by a preliminary education. Above all things, a boy should understand that the successful man is the man who does things. The highest thoughts and opinions are of little avail, unless put into action; and action must be practically continuous, regardless of one's desires or inclinations.

II

EDUCATION

I — THE PREPARATORY SCHOOL

A PREPARATORY school does not take the place of home training and home life. It is at best but a substitute. It is always preferable that boys of school age should live at home. If, however, circumstances make it desirable to send a boy to a preparatory school, there is ample opportunity for choice, as there are good schools in nearly every section of the country. They average, I think, rather better than the colleges, — perhaps because they do not attempt so much.

In choosing preparatory schools and colleges, it seems to me that different rules apply. While I favor sending boys to a college in a distant section of the country, in selecting a preparatory school I should choose one as near home as possible, so that the boy can see his family often and spend all his holidays and vacations with his own people.

Besides location, other questions to be considered are whether the school shall be military or non-military, sectarian or non-sectarian, one where parental oversight is simulated or one where the boy is independent. In making a decision a great deal depends on the make-up of the boy. Unfortunately, at the age when he is generally sent away his character is largely unformed, but parents ought to have some knowledge of the boy's characteristics and be governed accordingly. They must decide whether they wish their boy to be practically thrown upon his own resources and made to trust to his own judgment, character, and self restraint, or whether they wish him looked after more or less assiduously. They will find in the Andover and Exeter schools representatives of the class, where the boy has a wide freedom. Groton, St. Mark's, and St. Paul's represent the other extreme, where the boy's every movement is known and watched.

There is a good deal to be said in favor of a military school, for if properly run it teaches obedience, promptness, neatness, and precision, and its drill gives a boy a certain amount of healthful physical exercise and an erect carriage. There are many good military schools where just such results are obtained; there are some where so many incorrigibles are sent that they have come to resemble reformatory institutions, and it is

dangerous to throw the average boy among them. It is easy by means of a little inquiry to select the right ones.

A large percentage of the preparatory schools are either non-sectarian or only nominally sectarian. I do not know that there is any advantage in sending a boy to a strongly sectarian school unless the parents wish him brought up in a certain faith. It is to be said that strongly sectarian schools, as the Episcopal and Roman Catholic, give attention to religious training as an important part of their work, while in many schools it is perfunctory and half-hearted and mostly for the sake of appearances. In this matter the question of one's personal belief and wishes comes in, and it is hard to advise. Modern practice in this country is to divorce education and religion. I have never believed in this, and think we are already coming to see its danger. We are so divided into sects and schisms that it is impossible to agree upon any common ground for religious instruction in school, consequently the theory is to leave it to the home. There, except in rare instances, it is not given at all, so that the present generation is growing up without religious training. If one believes that the young should have some knowledge of the life of Christ and other Biblical characters, there is much to be said in favor of the strongly sectarian school, for there

these subjects are daily taught, and whether the boy likes it or not, he imbibes and absorbs a great deal of information about religious matters which he will not regret.

To most boys, going to chapel or church and the study of the Bible are distasteful. It is argued very plausibly that to force the boy to attend chapel and to study the Bible is to create in him an aversion to both which will last through life, and that when he is released from the obligation, he will drop it all forever. This is probably true in some cases, but there are many who learn to love the church service and who, having formed the habit of attending, keep it up through life.

I heard this whole matter very ably discussed by Dr. Peabody of the Groton School not long since. He made the point that it is not fair to take as an example the boy just after he comes from the fitting school when the spring is just relaxed, but that one should inquire about him ten years later, when his collegiate and professional studies are over, his wild oats, if any, sown, and he has got down to his bearings. His idea was that one would find many who as boys rebelled against religious practices drifting back to them and showing a love for the church and ritual. That many would do this I can neither prove nor disprove, but it seems plausible to me, and

perhaps some of the heads of the great schools have kept closely enough in touch with their boys to know this to be a fact.

"We are all creatures of habit," is a well worn saying, but it is well worn because the idea is often driven home to us. It is almost as easy to form the habit of doing right as of doing wrong, hence the habit of churchgoing formed in youth is valuable. Frequently, when a man goes to church in a merely perfunctory manner and with no real devotional feeling, he catches some word, some thought, some inspiration, which betters him, indeed may prove the turning point in his life. No man is ever hurt by associating with good people; no man goes out of church with impure thoughts; no man can be injured by being in daily or weekly touch with holy things. It is quite common to hear a sneer about some man who attends church but in his daily vocation falls far short of the Christ life. May it not be possible that that man is fighting against his worse self and that he is trying to use the church to help him make the fight? Don't try to drive him out of it. You don't know his soul. You can't read his mind. Every man is double — has two lives, a good and a bad, and they are constantly struggling one against the other.

The Roman Catholics, who compose one-third of our whole population, have taken a strong stand

on the subject of religious education and are striving to put all their children into parochial schools. This is a serious matter, for it is only through the mixing process which goes on in the public schools that we are able to assimilate and amalgamate our heterogeneous population. Without the mingling of all classes and races and religions there is danger that sects will be formed which will refuse to use and support the public schools and will demand separate maintenance. I think that the Roman Catholics, believing as they do, are justified in sending their children to separate schools, although, looking far ahead, it seems very bad for the children and the Republic.

In selecting a school, after deciding whether it shall be sectarian or non-sectarian, military or non-military, parental or non-parental, there are several other matters to be considered. Schools take their tone and standing largely from the head master and it is well worth while to see him and make inquiries about him. To serve the best ends he must be a man, a gentleman, a scholar, a good administrator, a lover of boys and must have tact and backbone.

The location of the school is also important. It should not be in a low malarial country nor too near a big city. The ideal location is among the high hills near some lake or river which permits

bathing, rowing, sailing, skating, etc. The water supply must, of course, be pure.

Not the least of the requirements of a good preparatory school is that of good teaching and the best way to ascertain the standing of any preparatory school is to ask the dean of some college how the boys who come from that school stand in their entrance examinations. He will tell you in a moment how high the standard of the school is, if it is a well known one.

2 — THE TRADE SCHOOL

Another kind of school which will probably be established in this country in the near future is the trade school. The fact that the old system of apprenticeship is nearly defunct makes it almost necessary to have schools of this kind. I have in mind a young man of about twenty-three years who, being very anxious to learn the machinist's trade, applied at several shops to be taken in as an apprentice. At every one he was refused on the ground that he was too old. This seems to me an absurd reason. If he was willing to serve the necessary time, what difference did his age make? In any event, if we had had a trade school he could and would have gone to that.

In a recent address President Flavel S. Luther of Trinity College, Hartford, spoke on this subject

so clearly and earnestly that I am going to give part of his remarks as being much better than anything I could write. He said:

"A trade school is an institution in which handicrafts are taught with the definite purpose of producing skilled artisans. The graduates of a trade school should be competent carpenters, plumbers, bricklayers, blacksmiths, painters, machinists, etc. The work of the trade school may also include teaching the various occupations in which women engage. The trade school, then, differs from the technical school; for the object of the latter is to train highly accomplished engineers. Neither is the trade school the same thing as a manual training school. The purpose of manual training is to give to boys and girls the culture and general improvement which come from the education of the hands and eyes. The trade school is frankly vocational. It fits men to earn a living in some specific way and to render to the state the indispensable service of the skilled workman. It takes the place of the old apprentice system.

"Now our whole system of public education is based upon the theory that the state, for its own safety, must see to it that the citizens are intelligent, trained to know and understand, able to vote with discretion. We educate our boys and girls not primarily for their personal benefit but for the

benefit of the state. Now to me, at least, it appears that the greatest danger which threatens the country just now comes from the lack of means for training the young to the vocations which must be followed by a large fraction of our people if we are to hold any position in the world.

"I am far from advocating any curtailment of present public school opportunities. We ought to have many more high schools and colleges, and the age at which children may lawfully leave school should, I think, be raised. But it seems to me that our public educational system is dangerously defective in that it does not provide instruction in the kinds of service which the majority of the pupils are expected to render.

"Of course when a boy spends two or three years in a trade school he must lose those years from academic work. That is inevitable. But is it not true that a young man with a good trade in which he is expert is more likely to make good his academic deficiencies, than is a high school graduate, who can do nothing, to become a useful citizen? I do not advocate public trade schools, however, as a panacea for all social ills. But I advocate their establishment as necessary to industrial success, necessary to the continuance of national prosperity, necessary to the reasonable efficiency and happiness of the generation which is about to crowd ours off the stage, essential to the

development of the best in American manhood."

3 — THE HIGH SCHOOL OF COMMERCE.

High schools of commerce are being started in a few of our large cities like New York, Boston, Chicago, and Philadelphia. They are modeled after the German schools, and are as yet but little more than experimental. I think they will be found to fill a great want, and will be very successful and useful. The aim of the German schools is to give boys a thorough training for commerce with foreign countries, to prepare them for keen competition, and to fit them to be salesmen, commercial agents, mercantile representatives, and consuls.

In Boston, the course covers a period of four years; instruction will be given in English, German, French or Spanish, mathematics, bookkeeping, physics, chemistry, commercial geography, general history, economics, economic history, commercial law, and political economy. Typewriting, stenography, and drawing will also enter into the curriculum. Later on courses in merchandise, wholesale and retail salesmanship, transportation, accounting, auditing, banking, brokerage, manufacturing textiles, etc. are to be introduced. A rather ambitious plan, you see, but a good one!

The head of the new school, Mr. F. V. Thompson, who has been studying the subject in Germany says:

"You will note that much of this is found already in the present high school curriculum, commercial law being the only new feature in the required portion, while the supplementary work is all new, even to this country, but is astonishingly successful in Germany. Most of the work required in the new schools, however, is elective in the other schools. The chief difference is in the way the studies are made to fit together. For example, mathematics, instead of being a puzzle over abstract figures and letters, is taught only in its application to business. The chemistry and physics courses, for instance, are constantly presenting mathematical problems, which will be the subject matter of the mathematical course. What is aimed at is to send the pupil out with a knowledge of mathematics he can use at once in making a living.

"In the languages also, the aim will be rather to cultivate ease in conversing in, and in writing, the foreign tongues than to make the graduates scholars in those languages. English and German are required but the pupil has the option of French or Spanish. History, geography, and economics are taught together and are designed to teach the sort of knowledge that men pick up in the course

of a business life. Where material comes from, why it should come in certain channels, the bearings of legal codes on trade, are the features that make up this portion of the course. The electives commend themselves, perhaps, but are made to follow only thorough preparation. The supplementary or post-graduate studies cover just what is laboriously picked up by boys in business, particularly if they get much ahead of the clerk class of employee. The whole course is designed to train in the distribution of goods in trade, supplementing the great work now being done in our technical schools in training for production.

" In general, also, the aim of the school is to turn out a business man, rather than a clerk; to give a broad training in the processes of commerce; to prepare a boy for the enterprise side of trade, for going out among men and doing things, rather than sitting at a desk and keeping tabs on the work of others. Hence the emphasis on foreign language, for our trade is everywhere extending among people of other tongues; on the actual practice of science as it appears in business, with the applications of mathematics in abridging calculations and ensuring accurate work.

" Business men I have talked with here and abroad complain of the total lack of knowledge of business among the graduates of schools, often necessitating long, wasted years in acquiring it.

In Germany, particularly, they have got away from the notion that trade can trust to the haphazard of commerce to produce enough of the sort of men wanted. They are now convinced that boys may, and must, be trained for business as for any of the professions, if the nation is to hold its own in the keen race for trade. Their commercial high schools have been enormously successful in producing just what business men want, and the Germans are extending them everywhere. There are splendid schools of this sort in Frankfort, Cologne, and Leipsic, and Berlin is about to open a big one. I visited eleven of these schools in Germany. The German consuls are all chosen from their graduates when practicable. The men go out to their posts with a knowledge of the prevailing language, a fair idea of their country's trade history, its methods and commercial practices, some notion of its legal system in trade, etc.

"All this is just what the business man wants in the agent he sends abroad, and none of this knowledge comes amiss at home. The man who knows the whys and wherefores of forms of notes, bills of sale, contracts, and the like; who knows enough of chemistry and physics to grasp the essentials of a technical process and adequately explain to a customer the merits of goods; who is able by his knowledge of foreign languages to keep abreast of trade movements, and, moreover, who is not at

a loss wherever he lands; — is the business man at his best today. This is what the new high school of commerce will aim to produce."

Commercial schools of the past have looked upon business as a trade and not as a profession. It was thought that training a clerk and producing a business man were identical. The business colleges originated this error and the public high schools copied the mistake.

Present day efficiency is the result of specialization. The special school of commerce with its singleness of purpose can produce more efficient results in its particular line than can the general school which attempts to meet equally well the needs of a number of different demands.

4 — THE BUSINESS COLLEGE

The term college as used by business colleges is rather ambitious, and it would be better to call them schools. They are supposed to fit a boy for a practical business life, and if run on the right lines would be of great benefit, for such an education is needed by the great mass far more than the one now given in our high schools. Our high schools are excellent fitting schools for college, but a large percentage of the boys who enter them have no thought of going to college, and I believe the training they receive is frequently a hindrance instead of a help to a business career. These boys

are taught a smattering of many subjects, the rudiments of the languages and sciences. They are given a taste of the waters of knowledge, then the cup is rudely dashed from their lips and instead of a book, a tape measure or a ledger is placed in their hands. The disillusionment and disappointment are bitter. It were far better for a boy to pass the three or four years now spent in a high school in a real business school like those in Germany or France. The boy would thus learn the things he needs to know, bookkeeping, stenography, arithmetic as applied to accounts, grammar as applied to correspondence, such foreign languages as he might need in shipping, banking, writing, telegraphy, etc. He would be really prepared for his life work. In addition he would be taught precision, accuracy, neatness, and promptness.

If this country is to maintain its place as a great commercial and manufacturing nation it must at once establish these schools on a broad and solid foundation. The best way is to turn our high schools partially into business schools; to keep up the present courses and fit all for an academic life who want it, and to give the great mass an opportunity to fit for the real life they must of necessity lead. Our business men today are not trained or prepared at all; they grow as Topsy did, and we have good ones, but if an American business

man or commercial traveler is put in competition with one of those thoroughly trained Germans one meets in every South American city, the American looks like a shifting engine standing beside a great mogul. The German has him beaten at the start.

What is the use of teaching Latin to a boy who is to be a commercial traveler? Put the time into business law, stenography, or bookkeeping. Our educational methods, while broad and generous, have been on the principle that all boys are alike and all destined for college. We must begin to specialize in the lower schools. We must have business schools run by our municipalities as our high schools are. We must have trade schools and agricultural schools run in the same way. Our " business colleges " today are mostly private enterprises, run for private gain, and few of them are of a high standard. A thorough study of the German system and its immediate introduction here are imperative. The business man should know his trade as well as the doctor or lawyer his profession. Give the business college a standing, a character, so that a degree or diploma from one means something. Let business men be pointed out as graduates of this or that business college; it will raise the standard of business men and give them a new dignity.

5 — THE SUMMER CAMP

There has arisen of late years a great demand for suitable places where boys who are too young to be at work, and those who need refreshment and upbuilding between the school years, can be sent with a reasonable certainty of their receiving benefit instead of harm from their summer vacation. This demand has been met by the establishment of a surprisingly large number of summer camps of various kinds; by the organization of tramping parties in which boys can walk through some particularly attractive portion of the country under the care of men of experience; and by the institution of trips of foreign travel on which boys can have the advantages of visiting other lands than their own, under the supervision of men who are qualified for their responsible duties.

The summer camp has for obvious reasons become the most popular, and seems, for reasons that one need not enumerate, to offer the best solution of the problem which confronts fathers and mothers who live in the city, or those who for any reason cannot give their sons their own immediate oversight.

Probably all persons will not agree as to what constitutes the first requisite for a good camp for boys, but those who believe that high character

and wholesome moral and spiritual tone are the chief results to be obtained will feel, as I do, that the all-important thing is to secure men of the right sort for the camp " council " as it has come to be called. No amount of skill in woodcraft, in athletics, and in teaching ability can compensate, and should not be expected to compensate, for any deficiency in the qualities of a Christian gentleman. Next to this supreme consideration comes, in my opinion, the situation of the camp. This should be, if possible, on the shore or very near the shore of some lake which has a good bottom and is fed by springs, and which is not contaminated by sewage or other zymotic conditions. The location of the buildings and tents should not be on a hill or at any considerable distance from the water, else the boys in returning from their swim will become fatigued and as heated as before going into the water. An abundant supply of pure spring water, the source of which is free from contamination, is very important; and almost equally so is an effective and sanitary means of disposing of all waste matter. A modern cooler with a circulation of dry cold air at a temperature of about 40° Fahrenheit for preserving and ripening meats and for keeping other provisions in a wholesome state is also essential.

After the men forming the camp council, the person next in importance is the cook; and the

health and happiness of the camp will depend very largely on whether he, or she, is a good one. Proximity to a good market and the opportunity of procuring fresh fruit and vegetables are important factors in the well-being of the camp.

It is desirable for social purposes and for religious and other assemblies to have a common or living room large enough to accommodate not only all the members of the camp but visitors as well.

Some camp men believe that fir or hemlock boughs covered with blankets, or a straw pallet on a board bunk, afford the most desirable kind of bed for camping; but I maintain that the most refreshing sleep and consequent renewal of the physical forces can be obtained on good springs and soft mattresses. A difference of opinion also exists as to whether it is better to sleep in tents or buildings. Many camps have large dormitories with numerous windows and ample spaces under the eaves for the circulation of air; but as a rule boys prefer to sleep in tents which are erected on platforms at least a foot above the ground, with an open air space beneath.

A motor launch, a sailboat, an abundant supply of rowboats and canoes, a good wharf, and a diving stand are all desirable in the equipment of a camp.

What are the boys expected to do? This question is answered differently at different camps,

and thus the character of the camp is determined. Some are devoted almost exclusively to tutoring; others to proficiency in water sports; others to nature study; others to the teaching and practice of manual arts; and still others, like the Harvard University camp on Squam lake, to instruction and practice in engineering.

At one camp I know of, all arise at 6:45 A.M. Those who wish, take a plunge in the lake for its invigorating effect. At 7 o'clock all present themselves before a councilor for fifteen minutes' practice of the U. S. A. setting up exercises. Breakfast is served at 7:30 and immediately afterwards a devotional service is held, consisting of a hymn, a selection of Scripture, and prayers. Then the boys and men make their beds and tidy up the buildings, tents, and grounds. At 8:30 those who have studying to do, get their books and retire to the pavilion tent where a councilor is at hand to assist them if needed. Another squad of boys start at this time with the instructor in natural history for a ramble through the fields and woods to search for flowers, ferns, minerals, and all kinds of insects and to learn something about woodcraft. Still another squad go to the manual training building and learn how to design and lay out, and then to fashion with their own hands, something which they are interested in making.

At 11:30 all go in for the morning swim, but always with a councilor in charge and with someone at hand in a boat to come to the assistance of any boy who might be seized with a cramp while in the water. All are out at 12 and ready for dinner at 12:30. After dinner there is a period of lounging around the camp while waiting for the 2 o'clock mail boat. After the mail has been read, the baseball squad repair to the diamond for daily practice; others practice track athletics; others play tennis; and still others go fishing or out on the lake in a boat or canoe. No one, however, is allowed the latter privilege until he can swim at least halfway across the lake. At 5 o'clock comes the afternoon swim under the same conditions as in the morning. Supper is served at 6, and is immediately followed by a brief devotional service.

The evening is spent in various ways. Some go out in boats or canoes; some write letters or read; some surround the piano and sing to their hearts' content; and some play games. At 9 o'clock all turn in, and after 9:30 silence reigns.

Thus boys with differing tastes and varying requirements are enabled to spend the day, for the most part in the open air, enjoying work and play under the constant supervision of men experienced in the training of youth. With

the right spirit prevailing, as it surely will if councilors and boys are carefully selected, what could be better? Surely nothing could conduce more decisively to the attainment of that chief desideratum: " mens sana in corpore sano."

6 — STUDYING A PROFESSION

" The choice of a profession is to a great extent the choice of a life, for nothing can be more different than the habits, associations, and relations of life into which the different professions cast us. By one single decisive act all these are to be settled for all the future."

In speaking of a profession in this chapter, I mean one of the learned professions — the ministry, law, or medicine, and to this list teaching may now properly be added.

Fifty years ago, if a man took a college education, it was with the intention of studying a profession. Men did not as a rule go to college to fit themselves for business. Now a large percentage of college graduates go directly into business or commercial life. In the early days, while most college graduates studied a profession, there were many professional men who had never been to college. It was not deemed absolutely essential, especially in law and medicine. In the ministry, a little higher standard prevailed and some time was generally spent at a theological school. In

law, a man would enter the office of some practitioner, read Blackstone and Kent, do the drudgery of the office for a couple of years, and learn how to draw ordinary legal papers. He was then ready to take his examination for the bar, and at some appointed time presented himself before the examiners, who asked a few perfunctory questions as to what he had read and where he had studied and then signed his application which entitled him to be sworn in as an attorney. That this system produced good lawyers was due to the quality of the men rather than to the method of training. At present all this is changed, at least in most states, and the tests are very rigid. Very few men try for the bar today without a law school education. Four years in college, three in law school, and a year in an office make a pretty trying preparation. This all means that the standard of the bar has been greatly raised, and it ought to mean, and probably does mean, a better class of lawyers.

In medicine it was formerly the custom to enter some doctor's office, read a few text books, and perhaps take a course of lectures in a medical school. The real education came later by actual practice and experience, and was at the expense of the poor patient. Nowadays the training is long and thorough, — a college course, generally, three years in a medical school, two years in a hospital,

and frequently a year or two abroad in some of the great hospitals or medical schools. This preparation gives the patient a more even chance.

Even teaching has been divorced from the haphazard methods of old, and careful training and certification are usually required.

Of the four learned professions, I think the ministry holds out the greatest inducements. The law and medicine are greatly overcrowded. Every town and city is full of lawyers without briefs, of doctors without patients. Per contra, many a town and city lacks a first-class minister; only here and there can be found a man of rare ability, high ideals, and depth of character bringing to his work the same concentrated thought and ardor that the best lawyers or doctors put into their cases; so I maintain that the ministry, looked upon purely as a profession, offers an excellent field for a young man.

In order to be a good lawyer, one ought to have a logical mind; his reasoning should be clear and concise; his memory should grasp facts and details and hold them; he should be a good mathematician and a good card or chess player, for the qualities that go to make a good mathematician, a good card player, or a good chess player are those that go to make a good legal mind.

In order to be a good physician, one needs strong nerves, the power of quick decision, cool-

ness at trying moments, not too much cocksureness but enough so that when he makes up his mind he is not afraid to act, deftness of the hands, and a keen knowledge of human nature.

In order to be a good teacher, one needs patience with a big P, a good understanding of human nature and particularly of young human nature, broad sympathies, and the ability and tact to handle and control boys.

7 — CHOOSING A COLLEGE

The United States offers a broad field for choice of a college. There are hundreds of so-called colleges and universities in our broad domain. They vary greatly in standing, requirements, and advantages, although there is a growing tendency toward uniformity. Some so-called colleges are simply academies, poorly equipped and struggling for existence, while some of the so-called universities are no more than colleges. In naming an institution, we are apt to be very ambitious, and are often governed by our wishes and hopes as to what it may sometime become. The multitude of these institutions, and the liberal manner in which they are scattered over the land, also attest our aspirations and the broad opportunities for an education.

We are very apt not to give sufficient study to the question, where shall we send our sons to college?

Many things have to be taken into account, — the kind of an education we wish the boy to have, the amount we are able or willing to spend, the time that can be afforded, the climate, and the social influences. If we wish the boy to have a scientific or technical education and he has the right make-up for it, the task is comparatively easy, for the number of really good scientific schools is limited. Many of the universities and colleges have scientific departments, but I advocate sending the boy to a scientific school, since it is usually better equipped and manned than the scientific departments of colleges. In the one case all energies are devoted to one object; in the other, it is simply a side-show to draw students. There are exceptions to this rule, but not many. In a purely scientific school, one gets into the scientific atmosphere, is thrown more with specialists and enthusiasts, and is under a better grade of professors than in a department of a college. The thorough equipment of a scientific school is very expensive, not only in apparatus but in men, and few colleges can afford it.

If the boy is to have a classical education, or a combination of the classical and scientific, the father's thoughts will first turn quite naturally, if he is a college man, to his own Alma Mater. It is easy to cast a glamour over the place where we have spent the happiest years of our lives; and

there is something to be said in favor of the traditions of a family and of keeping the family connection with a certain college, but this consideration should not be allowed to influence one too much. The tuition is not an important item to most, although it is to some. In most colleges the tuition is very low and far below the actual cost to the college. There are many colleges and state universities, especially, where no tuition is charged. The real cost comes under the head of living, and varies greatly. In reality a man can live cheaply at almost any of our colleges if he wishes, though he cannot be "in the swim" or move in the swell circles. There are colleges where the manner of a man's living and his clothes are not a determining factor. This is truer in the West than in the East; truer of small colleges than of large ones. Boys are naturally democratic, but many rich fellows go to our big institutions of learning and set a pace for extravagant living that is neither healthful nor wise. I advise rich parents to send their sons to a small college in a quiet town, where there is little wealth and where most of the boys have to work their way. The four years thus spent will remove many false notions in the boy, teach him simpler habits, and accustom him to hard work. Per contra, it is a good thing for a poor boy brought up in the country or a small town to go to a big institution.

It broadens his vision; lets him see a side of life hitherto unknown to him; puts him in touch with men who in after years may be of great service to him; and may disabuse his mind of certain wrong impressions about rich people. There are more chances for employment and more scholarships in a large college than in a small one.

The question of location and climate is to be considered. If the boy is delicate and has been raised in a city, the best place is one of the country colleges amid the high hills; if he is puny, an institution where great pains are taken with physical development should be selected. As a rule he should not be sent to a college too near home. A decided change is better, physically and mentally. The Pacific Coast boy should come to Harvard, Yale, Dartmouth, or Bowdoin; the New England boy should go to Stanford, University of Michigan, or University of Virginia; the Southern boy, to Cornell, or the University of Chicago. Shake them up, mix them up; let the East and the West, the North and the South, get acquainted. It is good for the boy, and good for the country. The friendships formed at college are life-long, and bring the widely separated sections nearer together. I particularly recommend this interchange to the North and South as being of great value for a better understanding between

the sections. I well remember certain of my own classmates from the South and their utter change of view as to Northern people. The complete change of climate is also beneficial and frequently gives the slow or backward boy a great start on his way to maturity.

The question of the personnel of a college, and particularly of its head, should be considered, for the president gradually establishes the tone of the institution and sets the pace for the men to follow. A man's whole life is often changed by the example set by the head of some great educational establishment. Words such men utter, and themselves forget, are often treasured for life by the boys, and at some crucial moment, — some parting of the ways where great decisions have to be made, — are a deciding factor. It is a pity that in the struggle for supremacy today, so many able presidents have to give most of their time to the raising of money to keep the wheels revolving. They are defrauding the students under them of their just dues.

At what age should a boy go to college? No rule can be laid down, as boys mature at different ages. One boy is as old at sixteen as another is at nineteen. Under ordinary circumstances, the boy who enters college late gets the best results. He has less of the colt in him, has greater realization of what he is there for, and can absorb more

of what is offered him. His intellectual faculties are better developed, and his morals are apt to be sounder. I should prefer to send a boy to college at nineteen years rather than at sixteen.

There are several state universities where no charge is made for tuition, but I suppose this privilege is confined to residents of the state in which the university is located. The heavy expense at any college, however, is not the tuition, but the cost of actual living, and this can be made small or large, as the student is economical or extravagant.

8 — LEARNING A TRADE

A boy ought to have a partial education before learning a trade, unless there is danger of his getting his head turned by a little learning and despising a trade. If he can go through the grammar school it will generally be sufficient to give him the rudiments of an education, "the three Rs," so called. Years ago it was the custom to apprentice boys for a period of years, generally seven, to some master in the trade they wished to learn, but this good old custom for which there was a sound reason is now obsolete, for boys expect to learn a trade and get full workman's wages in a year or two.

The labor unions have also placed serious obstacles in the way. They dictate how many

apprentices shall be taken on, how long they shall serve and who they shall be, so that it is not always easy for a young man to get an opportunity to learn a trade. If, however, the labor union allows him to do this, and he joins the union, he will get pretty high wages for a small amount of work. There is not now the same incentive to swiftness and excellence in work that there was under the old system. There are two sides to this question which have many times been ably presented, and I will not go into a discussion of the labor question. I do think, however, that there is not so good a chance today for a boy to learn a trade thoroughly as there was a generation ago.

As regards the trade a boy should learn, the question is usually one of chance or environment. The boy frequently takes his father's trade and that is perhaps the best rule to follow, for he has probably inherited some aptitude for it. Much, however, depends upon the make-up of the boy. It takes one kind of a boy to make a brick mason and another to make a silversmith; one kind to make a carpenter and another to make a railway engineer. Fate or opportunity generally settles it and not any consideration of the boy's capabilities. It is a pity so much is left to chance. A little wise direction, a little consultation with a man at the head of the trade, would frequently save serious mistakes and life-long regret.

EDUCATION

The question whether a boy shall learn a trade or continue his studies is not always a question of the financial ability of his parents. There are many rich boys going through college who would be much more successful at a trade, and many poor boys are learning a trade who would make good use of a college education. Too often the matter is decided by other considerations than fitness. Once in a while a boy can be found with a mind and taste of his own, who knows he would do better at a trade. I have in mind the son of a millionaire who decided to be a railroad engineer. He went into the shops, studied machinery, and worked at a lathe, etc., for two years; then went on an engine as fireman for three years and fairly earned his promotion to the position of engineer; and he made a good one because he loved his work. He told me he would rather run an engine than hold any other position in the world.

I know another case, — that of a Polish Jew in Boston whose father, mother, sisters, and brothers have all slaved and pinched for years to send him through the high school and to the Institute of Technology. He took the Franklin medal at the high school and is now to enter "Tech." where I do not doubt he will win high honors, for he knows what his education is costing.

Learning a trade means much more in this country than in most foreign countries for it is

easy here for the journeyman to rise from the ranks and become an employer. In foreign countries promotion is slower and the great majority are contented to plod on in the lower grades. Here any bright fellow may hope to become a "captain of industry," and he will make a better captain for having served in the ranks and having learned what obedience is.

Another reason why it is hard for a boy to learn a trade today is that everything is specialized. If he goes into a machine shop he is very likely to be put on a lathe turning out some special screw or bearing and he may be kept at that work for years. Of course he learns very little else. Our mechanics, therefore, are not so broadly trained as they were formerly. The boy in question would run that lathe perfectly, but if put on another machine, he might prove inefficient.

When a workman of high grade is required in one of our great shops, especially for such work as silversmithing, the manager is very apt to send abroad for him, as the foreign mechanic is more broadly and carefully trained.

Manual training schools are helpful but the necessity of an apprenticeship covering a period long enough to permit of a thorough mastery of the trade is evident.

9 — CADETSHIP IN THE UNITED STATES REVENUE CUTTER SERVICE

By Act of Congress, approved July 31, 1876, a school for cadets of the line was established, where young men are educated at the expense of the government to become commissioned officers of the United States Revenue Cutter Service.

A board of examiners, consisting of commissioned officers of the service, is convened in Washington, D. C., usually in the spring of the year, for the purpose of examining candidates for admission to the grade of cadet of the line. In order to save applicants who may live some distance from Washington the expense of going to that city, the department convenes sub-boards at other cities in different sections of the country where there are candidates.

Appointments to cadetship are made after strictly competitive examinations which are open to all young unmarried men who are citizens of the United States, whose ages are not less than eighteen nor more than twenty-four years at time of appointment, and who produce satisfactory evidence of good moral character. The candidate must pass a satisfactory physical examination before a board of officers of the Public Health and Marine Hospital Service, which precedes the mental examination whenever practicable. He

must pass a satisfactory educational examination with a passing average of 70 per cent. This examination, while largely elementary, is comprehensive and thorough, and is designed to ascertain if the candidate has had the necessary training to enable him to successfully carry on his studies at the school; it is entirely written, takes about four days, and comprises the following subjects:

Spelling — fifty words of average difficulty (weight 10); arithmetic — as comprised in grammar school text-books (weight 8); algebra — as comprised in high school text-books, including logarithms (weight 8); geometry — plane and solid (weight 10); trigonometry — plane (weight 10); geography — general, as comprised in grammar school text-books (weight 5); world's history and Constitution of the United States — as comprised in high school text-books, the questions on the Constitution referring to its general provisions only (weight 7); physics — as comprised in high school text-books (weight 5); grammar, rhetoric, and composition — the questions in grammar comprising the work given in the grammar school text-books, including parsing and analysis — in rhetoric, the work in the high school text books — in composition, the test consisting of the preparation of an essay on one of the three assigned topics (weight 15); English literature — as comprised

in high school text-books (weight 7); one modern language, French, German, or Spanish, any one of which may be selected by the candidate, the test including the translation of a short exercise into English, and also one from English into the language selected (weight 5); general information — questions relating to well-known matters of current interest (weight 5).

The board will consider the general adaptability of the candidate for the service, and mark its opinion thereon on a scale of 100. This mark of adaptability will be given a weight of 5 in a total weight of 100 for the entire examination. In determining the adaptability of the candidate the board will carefully consider the testimonials submitted by him and also his bearing and general appearance as reported by the members of the sub-board before whom he has appeared.

After passing the examinations, and prior to appointment to a cadetship, the candidate is required to obligate himself to serve at least three years as an officer in the service, after graduation from the school. After appointment, the cadet receives a salary of $500 per annum, and one commuted ration (thirty cents) per day. He is sent from the place of appointment to the school, which is admirably located at Arundel Cove, near Baltimore, Maryland, to enter upon a three years' course of training, each year being divided into

three terms as follows: sea term, from June 1st to September 30th; first term, from October 15th to January 31st; second term, from February 1st to May 15th.

During the sea term, which is spent on board the practice ship "Itasca," the instruction is mainly practical, special attention being paid to seamanship, navigation, signaling, gunnery, boat drills, and great gun target practice. The cruise, which begins on the first of June and occupies about four months, is made to Europe where several places of interest are visited. Upon the return of the school ship to Arundel Cove, Maryland, the academic year is taken up, during which time the cadets continue to live on board the ship, but pursue their studies in recitation halls on shore. The location of the station affords ideal opportunities on shore for infantry and light artillery drills, target practice with small arms, setting-up exercises, and athletic sports of all kinds; while the surrounding waters are well adapted for boat drills under sail and oars.

The three classes of cadets are given vacations as follows: December 24th to January 1st; October 1st to October 14th (both inclusive); May 10th to May 24th (both inclusive). During the academic year, liberty is granted to cadets meriting the same, on national holidays, Saturday afternoons, and Sundays after muster. During the

sea term, while the practice ship is in port, liberty is granted to such cadets as are off duty.

After the successful completion of the course at the school, the cadet is commissioned by the President to the grade of third lieutenant with the rank and pay of a second lieutenant in the army and ensign in the navy. From the grade of third lieutenant to the higher grades, promotions are made by seniority, after passing satisfactory physical and mental examinations before a board of commissioned officers of the service.

Commissioned officers of the United States revenue cutter service receive by law the same pay, emoluments, and allowances as officers of the army and navy with whom they rank, respectively. The following table gives the rank of officers of the line with officers of the army and navy:

U. S. Revenue Cutter Service	*U. S. Army*	*U. S. Navy*
Captain	Major	Lieutenant Commander
1st Lieutenant	Captain	Lieutenant
2d Lieutenant	1st Lieutenant	Lieutenant (junior grade)
3d Lieutenant	2d Lieutenant	Ensign

When the officers reach the age of sixty-four, or are physically incapacitated for active duty, they are placed on a retired list on three-fourths the pay they were receiving at time of retirement.

As the duties of the service are ever increasing,

and the service expanding to take in the new colonial possessions, it is very probable that Congress will give the service additional grades of a higher rank in the near future. All officers have the right of courts-martial the same as officers in the army and navy.

The service, which was established in 1790, has taken part in every war that the United States has engaged in, and its officers and crews have made records second to none. Its duties, which are varied and important, are performed mainly afloat on revenue cutters. The most important are as follows:

Locating and destroying derelicts at sea; protecting the customs revenue; assisting vessels in distress; enforcing the quarantine laws, neutrality laws, navigation laws, and other laws governing merchant vessels; coöperating with the navy when directed to do so by the President; also other varied and important service as may be directed. Officers are also detailed for duty in connection with the life-saving service.

Applications for permission to take part in the examinations should be made to the Secretary of the Treasury, Washington, D. C. No special form is prescribed, but the application must be in the handwriting of the candidate, and should give the date and place of birth, the state of which he is a resident, the schools or colleges which he has

attended, and the occupations that he has been engaged in since leaving school; it should state that he is unmarried, and must be accompanied by testimonials sufficient to give satisfactory evidence of good moral character. Upon the receipt of an application containing evidence that the candidate fulfils the above requirements, he will be informed of the date of the examinations and of the place nearest his home, where they will be conducted, and will be designated to be examined at such time and place.

10 — THE NAUTICAL TRAINING SCHOOL

In 1874 the United States Congress passed an act to encourage the establishment of public marine schools. Under this act the Secretary of the Navy was authorized to furnish upon application of the governor of any state a suitable vessel of the navy with all her apparel, charts, books, and instruments of navigation to be used for the benefit of any nautical training school or college having a branch established at any of the ports of New York, Boston, Philadelphia, Savannah, Norfolk, San Francisco, Washington, Charleston, Mobile, New Orleans, Baton Rouge, Galveston, or Narragansett Bay for the instruction of youths in navigation, seamanship, marine enginery, and all matters pertaining to the proper construction and equipment of vessels, or of some particular

branch. The President was also authorized to detail officers of the navy as superintendents or instructors in such schools.

Under this act New York City and the states of Pennsylvania and Massachusetts have for years maintained nautical training schools. New York City has the sailing ship "St. Mary," Pennsylvania, the sailing ship "Saratoga," and Massachusetts, the auxiliary steam bark-rigged vessel "Enterprise." The "Enterprise," which is probably the best type of the nautical training school, since she combines steam with sail, makes a cruise of about four months in the summer either in home or foreign waters. Upon her return from the cruise the upper deck is partially housed over and turned into a schoolroom where, from the first of November until the middle of April, the boys study and recite. The course covers a period of two years and its curriculum embraces such studies as arithmetic, algebra, grammar, and history, with the professional ones of seamanship, navigation, steam engineering and electricity.

The purpose of the school is to give to boys desiring a sea life a good start on the road towards preferment in the merchant marine. It does not profess to educate them to become, on their day of graduation, captains or chief engineers, but, in the short space of two years, it does teach them some of the rudiments of a very arduous profes-

sion, and some of the rules which must be observed to be successful in it. More than this, it gives to these boys a physical training and advantages which are unsurpassed. With good food and regular hours, plenty of work and fresh air, their development and growth is rapid and startling.

The discipline is mild but firm, and the boy is taught that he can be respectful without being servile, and that though the shadow of the White House falls athwart the path of every American boy, its accommodations are limited, and some perforce must remain outside. He is taught that to give a quick and willing obedience to proper authority is a duty; and that he must be orderly in the disposition of his effects, and be clean and decent not only in his person but in his words and actions. These are some of the things that the authorities of this school make earnest effort to inculcate upon its pupils. Aside from his professional studies the lad probably receives as good an education as he would in a public school of the same grade with the additional advantage of coming in contact with men outside of the little community in which he was reared.

A number of these boys after graduation go to sea, — unfortunately at present our merchant marine is not large enough to absorb many of them, — some enter the naval service, while others

obtain satisfactory employment on shore. All of them should become good citizens, and this, I take it, is the best return they can make to the Commonwealth.

Perhaps I am influenced by my love for the sea and perhaps my early reading of Oliver Optic casts a glamour over a seafaring life, but it looks good to me and I wonder that more states with seaports do not establish nautical schools and, particularly, why the states bordering on the Great Lakes do not found them.

I give below the requirements for admission to the school in Massachusetts, and those in New York are probably quite similar.

During the summer cruise of the "Enterprise" the whole time will be devoted to instruction in seamanship, navigation, and engineering. Blank applications for admission to this school can be obtained at the office of the board, State House, Boston, or of the superintendent on board the "Enterprise."

The following qualifications are necessary for candidates:

First. — They should be between the ages of sixteen and twenty years.

Second. — They must be of normal size, of sound constitution, and free from all physical defects, and must pass a physical examination before the ship's surgeon.

Third. — They must, before admission, produce testimonials of good character.

Fourth. — They must have an inclination for a seafaring life, and enter the school of their own free will.

Fifth. — They should be able to pass a satisfactory examination, such as would be required for entrance into the high schools of this state. (Examinations are held in the autumn, soon after the return of the " Enterprise " from her summer cruise, and at other times at the discretion of the board of commissioners.)

Sixth. — They must have either a parent or guardian residing in the state of Massachusetts to sign the necessary papers.

This school ship is in no sense a reformatory, a sanitarium, or a craft for pleasure sailing, and only boys of good character, who will appreciate and avail themselves of the instruction, are admitted; nor will they be allowed to remain on board unless they yield prompt and willing obedience to the rules and regulations of the ship and obtain fair marks in their studies. Boys who are not rugged in physique and resolute in spirit, or boys who are at all afraid of work or wet or cold or the general privations that may accompany a seafaring life, are not suited to become members of this school.

Boys who are admitted to this school are pro-

vided at the expense of the state with board and education. All clothing, bedding, necessaries for personal use and expensive text-books must be provided by the parents or guardians. Cadets upon entering the school are required to provide themselves with the following articles, which must be renewed when necessary:

Two pairs black leather shoes (one pair medium, one pair dress shoes), three white or negligee shirts, six standing collars, three pairs cuffs, six pairs drawers (three heavy, three light pairs), six undershirts (three heavy, three light), six pairs socks, one black tie, six pocket handkerchiefs, one penknife, six towels, one scrub brush (hand), one tooth brush, one clothes brush, one hair brush, one comb, one box blacking, one blacking brush, thread, needles, wax, tape, buttons, and soap for toilet.

In addition to the above, a deposit of $80 is required to defray the expense of white and blue uniforms during the first year on board. For the second year $30 will be required.

WITHDRAWALS, ETC.

If for any cause parents should find it necessary to withdraw their sons from this school before the expiration of the term of two years, written application must be made to the commissioners, stating in full their reasons for the desired withdrawal,

that the board may take intelligent action thereon. Unless such reasons should be satisfactory to the board, and withdrawal is insisted upon, and in cases of dismissal for cause, it must be understood that any balance remaining to the credit of the cadet on the clothing fund account will be forfeited.

It must be understood that cadets are required to present a neat appearance at all times on board or on shore, and the cost of their clothing and books, etc., will depend largely upon the care they take of them. With proper care, the deposit of $110 should be sufficient for the cadet's two years' term.

A large portion of the graduates of the school have obtained positions in our merchant marine in various capacities. Several are officers of steamers or sailing vessels, after passing the examinations for mate or coast pilot; and six, at least, have obtained the command of vessels. During the war with Spain seventy graduates of this school served in the United States navy in honorable positions, with credit to themselves and to the school. The law compelling the subsidized steamer lines to carry one cadet for every 1,000 tons burden has provided employment for many of these cadets. The Commonwealth is opening up a seafaring career each year to about forty young men, besides the valuable education

which it gives to boys who do not finish the course, or who take shore employment.

At the end of the two years' term, every boy who has passed through the course successfully will receive a certificate and diploma showing his character and qualifications, which certificate, with such aid as the commission will always gladly render, should enable him to obtain a suitable position in the mercantile marine.

All communications should be addressed to the Board of Commissioners Massachusetts Nautical Training School, State House, Boston, Mass.

III

THE MINISTRY

ONE of the ablest and best of our New England ministers said to me the other day, "I believe that the true appeal to men for the ministry is of the same kind that is made for a forlorn hope; it is an appeal to the spirit of sacrifice and chivalry. The pecuniary reward is practically nothing. Phillips Brooks, one of the world's leaders, received as Bishop of Massachusetts $6,000 a year. A lawyer of half his ability and standing would scorn accepting that for a retainer in a case of great responsibility."

It has been my good fortune to come in close contact, largely in New England, with a great many ministers of various denominations. I have found them, almost without exception, earnest, honest, and devoted, and I must confess that they had very little thought of their own advancement or of accumulating property; their only purpose seemed to be to do their duty, and properly educate their children and keep them from want. Nevertheless, I feel that there is need and room

in the ministry for a class of men different from any that I have ever met, — men of the same kind of ability that our great statesmen, financiers, and captains of industry possess. In saying this I do not wish to criticize the men who at present fill the ranks of the ministry, for I have nothing but words of praise for them.

Many of the colleges of this country were founded by religious denominations and were intended to promote the interests of their several denominations. The prime object in the institution of Harvard, Amherst, Williams, Dartmouth, Yale, Tufts and Boston University was to prepare men for the ministry, but to-day many of these colleges have not even a theological department, indicating that there are stronger attractions than the ministry. When these colleges were established the number of professions open to young men were few, now they are many. In the early days of the ministry they considered it the one great calling and it is today for a select few, but the great mass of young men pass it by.

In the average college class not over five or six men study for the ministry, — perhaps not more than two or three. What are the characteristics of these men? Are they the able, forceful leaders? Why do not more of the aggressively able men take up the ministry? Why should not the first of all callings get more of the best men? I do not mean

the best morally, but the best mentally. Of course, they should be the best morally too. I believe it is not altogether a matter of dollars and cents. At the college age men are apt to be altruistic; they generally have enthusiasm and high ideals, and I believe that one reason why so few adopt the ministry is because the subject is not strongly brought home to them, because few of them have ever heard the gospel illuminatingly preached, because few of them have ever had the Bible properly taught to them, because no man has ever come in contact with them who could make an impression on them. What such men need is a powerful leader, a man of the Phillips Brooks stamp, whom they can understand and follow. It seems to me the churches might send virile men through our colleges looking for material and making proselytes as the Jesuits have done elsewhere in the world. In this way the colleges might be made great centers for the spread of religion instead of nurseries for agnostics. Our colleges are the most promising field in this country. One young and active man swung into the church for life will accomplish as much as a dozen old men. He will go out into the world to conquer new fields; their work is finished. " What we need is to bring will to meet the power. There is enough of both but they lie in different hands, and oh, how often men who hold the power stand

like savages on some new-found golden coast holding out their priceless treasures, proud and eager to barter them for some childish trinket or poor, worthless toy."

The true appeal of the service of apostle or prophet is to the spirit of sacrifice and humility. It would be a peril to the Christian religion if men went into the ministry for its millions; the calamities which have overtaken the Church of England have come of her endowed "livings" used as provisions for her worldly younger sons, or as political rewards of merit.

It is a waste of time to talk about the ministry till we accept the real and larger thing of which it is a part. The Christian ministry is that life of service which manifests love to God by love to man. No one answers the trite question, "Is life worth living?" more effectually than does the modern business man whose word is as good as his bond, the journalist whose utterances always ring true, or the citizen who has the welfare of society constantly in mind. From the ranks of such servants, one and another are called to leave the employment in which they are engaged and make their Father's business their first object, even going to great lengths in making special preparations for winning men to service.

"Go out quickly into the streets and lanes of the city." "Go out into the highways and

hedges." "Go ye into the village over against you." "Go ye into all the world."

Those who respond to this call ought to prepare for the Christian ministry. To see what this involves, study the life of Stephen the deacon. To know what a minister might well strive to be today, study the life of Frederick Denison Maurice, and its fitting sequel, the life of Charles Kingsley. Supplement these by the record of the heroic Damien, and the life of Moody, and last, but not by any means least, the life of Phillips Brooks.

Never has there been greater need for men of the highest type of Christian character. What the ministry needs today is assistance from the ranks of the great leaders of business, finance, and industry. It takes men of as good calibre to make successful ministers as it does to make successful bankers. Men of intellect and wealth should ask themselves whether they are not called to lay down their present vocations and devote the remainder of their lives, their great gifts, and their broad experience in handling men, to the service of their kind. If they want something worth fighting for, here is the opportunity to obtain it. Such men would not be hampered by the necessity of struggling for their daily bread; they could center all their energies and abilities upon one great object. Dr. Eliot, president of Harvard College, stated in a recent lecture, "Well trained young

men who possess the needed mental gifts and who also have some pecuniary resources, either by inheritance or by marriage, ought to aspire to the occupation of the country minister, just as well-to-do young men are going into the profession of medicine, not so much with the purpose of practising medicine as of advancing medical knowledge and skill. These two missionary callings ought to attract fitting young men who possess in whatever way a modest independence as regards money."

It is probably the silent prayer (alas! how seldom answered) of nearly every good, honest mother that one of her sons may enter the ministry. Why? Because she feels in her heart that it is the highest and noblest of callings, and no earthly rewards which her son may obtain, no eminence which he may reach, will afford her the same proud joy which she would experience in seeing him in a pulpit and devoting the best of his life to noble service for mankind. I wish to make one further quotation from Dr. Eliot. He says, "I have known well a large number of ministers in many different denominations. They have mellowed with age, they have grown more sympathetic with other beliefs, other religious practices, and other religions. The ministry sweetens and softens a man, making him more sympathetic and more loving. It is not a strenuous life in the vulgar

sense, but is a full, varied and bountiful life. It destroys nothing, hurts nothing and poisons nothing; it crowds out evil by fostering good. It deals with the things that abide; faith, hope and love."

IV

THE DOCTOR

TO the study of medicine as a profession the young man should bring several fundamental qualities, — qualities, to be sure, which are the basis of real success in any life work, but which are absolutely essential if he would become a good physician. In the first place he should love the truth, for medicine in the abstract is merely a lifelong study into the true interpretation and correct application of nature's phenomena in health as well as in disease. In the average boy this love is common, being most often expressed by that form of inquisitiveness which leads him to take to pieces his first watch to see what makes it go. This trait, though destructive in early youth, will later become of great benefit, and is to be encouraged. Further, he should be alert, self-reliant, and neither lazy nor selfish: alert, because the practice of medicine has today become one of the most intense of all professions, and in it there is no room for the day-dreamer or sentimentalist; self-reliant, because no one will

believe in a man in this world who does not first believe in himself; neither lazy nor selfish, because the details to be learned are countless in their number and variety, and because the man who is constantly self-seeking in all that he does, will make but a sorry showing among his professional brethren.

Two other attributes, very necessary later, can be cultivated, at least in their inception, before the boy has left the home roof. He should be taught to bring to completion whatever he undertakes, whether it be the reading of a book or the building of a boat. Much time will be saved by the early acquisition of this valuable habit. The second attribute, for the acquisition of which, training should be begun as soon as possible, is that of quick and accurate observation. It is not enough that one looks and says, — Yes, that object is a house, — and then dismisses the subject. The same glance which makes him conscious of the large fact, house, should also make him conscious of the details which go to make up the whole. The color of the house, the material of which it is built, the number of windows, chimneys, and doors, and as many more details as possible should be noted. A great part of medical training is concerned with the development of such detailed observation, and the man who has early acquired such ability will find himself in the first rank. Finally, no boy

should be urged to study medicine to whom the idea seems distasteful, for such usually prove to be very mediocre physicians.

As to the amount and kind of preparation necessary before beginning the study of medicine I should urge that it be as complete as the young man's financial resources will permit. Practically all medical schools of good standing require for admission a first-class high school education, to which must be added some knowledge of chemistry, physics, and possibly zoölogy. This is the minimum of requirement, and it is gradually being raised by most of the good schools of America. Today a college course is greatly to be desired before attempting the study of medicine, and already Harvard has recognized this fact and demands that the applicant for admission to her medical school shall hold the degree of A. B. or its equivalent. Therefore, the man who would study medicine should first go to college, even though he have to make his way by scholarships and his earnings. About half of the courses taken at college should be preparatory for the work to come later, emphasis being laid on natural sciences and languages. The rest of the curriculum should contain subjects which happen to attract the man's individual interest, for later he will hardly find time to indulge in any study of a non-medical nature.

With his entrance into the medical school begins his real building of a reputation as a physician. Here competition is severe, but to the ambitious man its severity is an ever present stimulus to do good, earnest work. He will come to know his teachers well and will profit by their enthusiasm for science. They in turn will soon be able to form an opinion of the student, and will stand ever ready to reward a good scholar. Besides attending the prescribed courses the student should improve every opportunity to prepare papers on special medical subjects, and to read them before his classmates. By so doing he will learn how to use a medical library and will become familiar with the various journals on which, after graduation, he will depend to keep him abreast of the times.

From the beginning of his medical course the student should look forward to a hospital appointment after graduation. Such appointments are made upon competitive examinations, and so indispensable is the training which the hospital affords, that though the student may not be able to win a position in the largest or most popular hospital, he should persevere till he gets one somewhere. In our large medical centers such opportunities are numerous, however. To the Boston City Hospital, twenty-one appointments are made yearly; to the Massachusetts General Hospital,

fifteen; while to such hospitals as the Presbyterian, Roosevelt, and Bellevue, in New York, the number is even larger. The terms of service vary from one to two years, during which the interne is given food and lodging. But few positions offer any salary, the experience gained being considered an equivalent.

On finishing the hospital work the question of where to settle and whether or not to choose a specialty must be decided. From six to ten years and from three to ten thousand dollars have been spent in the acquisition of an education. If the man has even partially profited by his opportunities, that education is a broad and valuable one, and must be put to use. How to do this is best decided after consultation with a few of the visiting physicians or surgeons under whom he has worked while in the hospital. It is very important to recognize one's limitations, for not a few men whose only claim to fame is the appearance of their names in the directory of a large city, would get plenty of opportunity and a good paying practice in some less populous community.

Owing to the rapid advances which have been made in medical instruction in America during the past twenty years or so, it is no longer necessary for a man to go abroad after leaving the hospital. It is much wiser for him to spend the first

five or six years in getting firmly established in his chosen community. Then he may visit the hospitals of Europe with advantage, knowing that he has a definite berth awaiting him on his return home.

Further, no man intending to study medicine should marry until he has finished his hospital training. In fact most of the hospitals insist that their appointees shall be single men.

To the man about to begin a medical career the future promises many bright things. One thing, however, which he must not expect is to become rich as the term is used today. A physician's income is not great, but in most instances is ample for a comfortable and respectable livelihood according to the standards of his community; and there are in store for him many things which can never be reckoned in terms of dollars and cents. A doctor's position is one of high trust, second to none. The doors of rich and poor are alike open to him, and the wide experience with mankind in all its phases of language, race, and creed, which his daily work affords, makes for a broad view-point and many friends. Thus the typical physician of today is an active and versatile man; a good fighter, not against his fellow-men, but against disease; not callous and unsympathetic, but possessed of much imperturbability; a man of high ideals and proud of his profession, — but

with a pride which is far removed from snobbishness. Surely the most intense satisfaction in the world is his whose skill and energy have saved a human life.

V

THE LAWYER

IN spite of the constant gibes at lawyers and the daily jocose perversion of the word "lawyer" into "liar," the members of the bar are very much respected citizens and the law a very dignified profession. It is a good profession to be in. It is also a good profession to get out of. What is meant by this last sentence will be explained "hereinafter." Whether or not it is the right thing for any given young man to take up as his life's work depends upon the young man. Will he enjoy it? And has he the right mental qualifications? As for mental qualifications, common sense is perhaps the most important, and as for enjoyment, he will probably enjoy it if he is qualified for it.

It takes a substantial amount of time to train one's self for the law. A college course is desirable, but by no means necessary. Most, if not all, law schools admit students without a college degree. At the Harvard Law School, for instance, which enjoys as enviable a reputation as any other in the

United States, a college degree is a sufficient certificate for entrance, but candidates presenting themselves without a diploma are admitted upon passing certain examinations. The practical result, however, is that most of the students at that particular institution are college graduates.

A law school course is highly desirable but, of course, not absolutely necessary. The old-fashioned way of learning law was by reading in an office, but this way is rapidly going out of date. A lawyer in a busy office has no opportunity to give instruction, and even if he had, he could not by any chance give as broad or as scientific or as helpful a course as can the professors in a good law school. On the other hand, the student cannot become as enthusiastic over his work. At the best law schools the interest is unflagging. Reading in an office, however, is likely to become tedious. With reference to securing desirable positions later on, the best offices will invariably discriminate in favor of law school graduates. For those who cannot go to a regular law school there are night law schools in the larger cities. These often give excellent instruction. It requires about three years of study to be admitted to the bar.

Assuming that a young man has been to a law school and completed his course, he should next go

into an established law office. This is wiser than immediately starting for himself, for there are points in office and court practice and professional etiquette which he can pick up better in this way. He will also have more to do, and thus get more experience. For the first year his duties will be looking up law, drafting deeds and other papers, foreclosing mortgages, collecting evidence, going into court with his seniors, trying cases himself perhaps in the lower courts, and making himself generally useful in advancing the volume of business on hand. Sometimes a young man goes into one of the public offices as, for instance, the attorney general's, the district attorney's, or the city solicitor's. This is often attractive, for the initial salaries are somewhat larger than in private offices, and the prospects of getting into court are somewhat better. Many men have risen to eminence through these channels.

The young lawyer who starts in this way may be advanced in the office in which he began until he becomes a member of the firm, but more generally, for one reason or another, he leaves and goes into a new office, or starts out for himself. If he starts out for himself it is with some trepidation, for there is in a city the expense of some hundreds of dollars for office rent, additional expense for a stenographer, telephone, and one thing and another; and it is difficult to earn enough to

pay these substantial sums out of collecting small and "uncollectible" bills. But the young lawyer nevertheless starts, and gets along better than it seems as though he could. Business drifts in from one place and another. His friends see that he is in need of assistance, and turn over to him small pieces of business, which in turn lead to others, and presently he has clients whom he never expected to have. Very often those whom he has successfully attacked come and employ him. He is likely, however, to have a good deal of spare time, which he may profitably employ by going into politics, or by devoting it to a secretaryship of some college or other organization, all of which increases his acquaintance, and so the ball rolls and keeps gradually increasing.

The practice of law nowadays may be divided into two branches — court work, and office work. The trial of cases in court is the work popularly associated with the lawyer's life, and it is, indeed, the basis upon which his professional reputation rests. In regard to such work, it may be said that it is stimulating and arduous. A busy trial lawyer in a large city has a congestion of cases upon the docket, and is forced upon getting through with one trial to go immediately into another. The writer has known a prominent attorney on concluding his argument before a jury to be accosted

by a younger lawyer, who had retained him as senior counsel, and advised that his case was reached in another session.

"Is there any reason why you cannot go right on?" said the younger man.

"I don't know of any," replied the senior, "what is the case about?"

And in he went and began the new case, picking it up as he went along and securing as early an adjournment as he could so that he might familiarize himself with the matter before continuing in the morning.

The courts sit nearly all day, say from ten until four, with an hour out for lunch, so that the time for preparation is limited and necessarily invades the evening. Besides preparation of cases, of course the court lawyer has to see clients, interview witnesses, and attend to the manifold details of his other business.

Many lawyers never go into court at all. There is a large field for their activity in office work, and such work may become much specialized. Thus, there is a certain kind of probate work, such as drafting wills, acting as executor, preparing probate accounts, managing trust estates, both realty with the accompanying repairs and collection of rents, and personal property, including investments in stocks, bonds, mortgages, etc. There is corporation work, including the forma-

tion of corporations, the issue of bonds and stocks, the merging of corporations, and advising the directors of corporations as to what it is necessary for them to do in the great variety of matters that come up for decision. This is an important and desirable kind of work, for it is remunerative and leads to other things. There is the soliciting of patents, which includes drafting claims and specifications and drawing plans of the invention for which a patent is to be applied. There is conveyancing, which involves the passing on the validity of titles to real estate. The old law regulating real estate was very complex and utterly unreasonable. Nowadays it is very much more in accordance with common sense, but it is still technical. A conveyancer must examine the title at the registry of deeds, or have an assistant do it for him. This, contrary to the general impression, is a very laborious matter. It very probably takes a day to trace the title back for fifty years or so, and then, the chain of title having been established, all the grants by each owner during the time that he held the land in question must be scrutinized to see that he did not encumber it. Conveyancing is not generally so profitable as many other branches of the law, and opportunities for making a costly error are somewhat greater. In addition to the office work sketched above there is that of counselling bankers and brokers,

men engaged in commercial business, landlords, tenants, and many others.

A lawyer is not likely to become rich, as that word is used today. He is likely, however, to make a good living, and is practically sure not to become bankrupt, because he does not have to invest capital in the hazards of business. The old saying is that a lawyer lives well and dies poor. This is nearly true still. The first year of a young lawyer's practice is likely to bring him in a few hundred dollars, the second year, twice as much, and after he has been at it six or seven years he can earn enough to live comfortably. At the top of the profession in a very large city handsome incomes are secured, — $50,000, $75,000, and more.[1]

The rewards of court work are generally less than the rewards of an office practice.

It has been said earlier in this chapter that the law is a good profession to get out of; what was

[1] President Hyde of Bowdoin College has collected from such graduates of that institution as cared to make statements of their earnings, statistics as to the remuneration derived from various occupations. The average earnings of the lawyers were as follows:

Years Out of College.	Number.	Average Earnings.
1-10	39	$1,344
11-20	33	2,796
21-30	33	4,126
31-40	17	7,470
41-50	26	5,333
51-60	6	5,383
Total,	154	3,758
Out of college over 10 years,	115	4,577

meant is that it affords an opportunity if desired of working out into desirable positions in other affairs. Thus, a lawyer will often appear as the head of a great railroad system or of a bank, or of one of the great corporations doing business in all the states of the Union. A great number of the members of congress have been and are lawyers, as well as a large percentage of the presidents of the United States. Of course the judiciary is recruited from the bar. A judge is a highly respected member of the community. Many regard the judiciary as the bulwark of our government.

As has been said, the practice of the law does not lead toward great wealth, but there is a satisfaction in it. A lawyer knows his legal rights and this gives him confidence in himself. In addition, his life brings him into contact in a large measure with cultured people whom it is pleasant to meet and do business with, and he is likely to have a certain standing among his neighbors.

It has been correctly said that in the early days of America the clergy were the important people of the country, that later on from the days when the government was being founded down to the time of the Civil War the statesmen were the people to whom all eyes were turned, and that now the business man is the man who is doing the important work and achieving the important re-

sults. There always has been and always will be, however, a need for men learned in the law, and they perform and always will perform an important duty in keeping the complex structure of civilized life from getting out of order. It is an excellent profession to go into, and any young man who feels that he would like either the work of orally forcing conviction upon the minds of court or jury, or the work of reasoning on the problems brought up by the adverse interests of man and man, and adjusting them, can make no mistake in taking it up.

VI

THE MERCHANT

IT is stated that ninety per cent. of all the men who go into business fail. This percentage has always seemed to me extraordinarily high, but I suppose it is based upon unassailable statistics. If it is true it is appalling, and demonstrates either that business is a desperate gamble or that a large percentage of the men who enter upon a business career are absolutely unfitted for it. I should like to know whether the same ratio prevails in other countries, in Germany, for example, or whether it is peculiar to this country.

I think the reason so many fail is that most men are not trained for business, have not served an apprenticeship, and, in fact, do not know their profession. How many business men of your acquaintance had any special training? What is the ordinary way in which a man in this country drifts into business? Is it not generally in this manner? He starts out as a clerk in a store, and after a few years in some one department comes to the conclusion that

he can run a store as well as his employer. It looks easy, — simply to buy a lot of goods, put them on the shelves, sell them, and pocket the profit. If he has a little money, he buys a stock of goods. If he has no money, he borrows of relatives, friends, or of a bank. For a while all goes well and he is seemingly successful, but after a year or two he finds that he has a good many bad bills, his stock is depreciating, he has used up his profits to live on, and has not the wherewithal to replenish. His books do not balance. He has omitted to take account of stock. He cannot compete in prices with his old employer. The customers who came once or twice in a friendly way disappear and the result is bankruptcy, and he next appears as a clerk in a department store with a grudge against the world and a bitter sneer for society in general. Nine out of ten failures arise in this way.

Not every man is fitted to be a merchant any more than he is to be a doctor or a lawyer, and even if one has the natural talents to make a good merchant he should have training and experience before starting in.

One should first examine himself to see if he has the right qualities, which are the trading instinct, an eye for business, perseverance, good judgment in buying, — for most of the success in business comes from buying right, — accuracy, and, last

but not least, honesty. With these qualities he may venture. To them should be added a good, sound, common school education and, if possible, a course of a year or two in a business college to learn the theory of business, bookkeeping, handwriting, business law, etc. A few visits to great trading centers will be very useful, and a careful study of the methods of advertising will yield big returns. It is, of course, well to serve an apprenticeship, and a good long one, in some mercantile house before starting out on one's own account, and even better to be with two or three houses in different cities in order to gain a broad knowledge and experience. When one finally launches his bark upon the troubled sea of business, it will be the part of wisdom to associate with himself a man of age and experience to look after accounts, who can offer suggestions which he has picked up by hard knocks and which are not to be gleaned from books. For one thus fortified, the chances of success are greatly enhanced, and he may reasonably hope to be among the ten per cent. who are successful.

VII

THE COLLEGE PROFESSOR

THE work of the college professor differs from that of the ordinary teacher.

By teaching one generally means nowadays service in public or private schools, seminaries, academies, etc. The word professor means a specialist in some branch which he is particularly qualified to teach, and specialization is becoming more and more defined. In the old days a man might teach several branches and was generally forced to do so by the poverty of the college, but now the rule is, one study, or perhaps two when the subjects are correlated.

The generosity of our people and state aid have enabled our colleges to employ better men and pay them better salaries, and Mr. Carnegie has evolved a scheme to place them above want when they are incapacitated by age or illness. This makes the calling of a college professor altogether delightful, for the specter of a hungry old age has been laid, and if he is willing to lead the simple life, he can follow his hobby or inclination

to his heart's content with no thought for the worldly accumulation of dollars.

The college professor, immersed in his favorite work, handling the tools he loves, bathed in an atmosphere of learning, and surrounded by others bent on the pursuit of knowledge, lives a life apart from the noise and confusion of the world. With no fear for the future, and with long vacations covering nearly a third of the whole year, in which he is free to travel, study, or loaf, what more could be desired? What other calling offers such inducements?

Salaries are not large though they are increasing. They now range from $1,500 to $10,000, with $2,500 possibly as an average.

VIII

TEACHING

TEACHING has risen to a new dignity of late years. In the old days it was thought anyone could teach and this occupation was the resort of those who had failed in other callings. But times have changed, and one has to be the real thing now and prove it, for teachers have to be examined and certificated and looked up in every way. Then, too, the teachers themselves take a different view of the subject. They take pride in their work, and try to excel. Frequent conventions are held, — county, state, and national. Teachers' institutes are generously provided. Ideas are compared, books are written, lectures are given; in fact, pedagogy is attracting some of the best men, and prizes are held out which will rapidly increase the efficiency and quality of the material. As our colleges and schools become richer and better endowed, they are able to offer better salaries, and that, too, is raising the standard of the new material. Carnegie has provided a pension fund and, in fact,

from one of the least considered callings, teaching is rising to one of the first rank.

The educational field offers the young man opportunities for making a good living, for raising the standard of American citizenship, and for doing valuable service to his fellow-men. No other profession not even the ministry has more urgent need of men who combine all the essential qualities of true manhood. In this, as in other professions, the man who does something rises above the surface, while the one who seeks to have something done for him sinks.

The tendency of legislation is to elevate the profession of teaching through the enactment of laws which are to bring about better professional training, more reasonable compensation, and a longer tenure of position.

The guidance of coming generations through the period of school life when so much depends upon the personality of the guide, should be sufficiently attractive to young men who are to choose a life's work on its merits.

The desirable positions in the educational fields below the college, may be enumerated as follows: city superintendent, supervisor, high school principal, high school sub-master, grammar school principal, teachers of special branches, such as music, drawing, manual training, etc., evening school principal. The salaries offered are remu-

nerative enough to be sought, ranging from $800 to $10,000. These positions carry with them responsibilities which require men of ability.

Encroachments of politics and religion, localism in the teaching force, incompetence of school boards, and public apathy in regard to school matters constitute the most embarrassing features of educational work All these are perplexing problems and their solution calls for men of tact, firmness, and character. The young educator is sure to be confronted with these perplexities, and his good sense will be his surest safeguard against their working serious injury to his immediate educational work.

The best way for one to become a teacher is, after settling in his own mind that he has a genuine love for the work, to make careful preparation for it. I advise a four years' collegiate academic course and subsequent training in a good normal college. Some of the most lamentable failures which have come to my notice have been college graduates who have placed their sole reliance upon their college training and methods of instruction. Many of these might have become brilliant successes if they had taken proper professional training. The equipment for teaching should be as complete as that for any other profession, and no young man about to enter the ranks as an educator can afford to dispense with it.

IX

THE TUTOR

A YOUNG man generally takes up tutoring as a means of helping him through college, or of piecing out a too meager income, or as a mere stop-gap while he is feeling his way to his real vocation in life. If a man has a gift for teaching, tutoring is a calling not to be put lightly aside. It may be endowed with considerable dignity, and be made very profitable.

As in any other calling or profession, preparation and certain qualities are requisite for success. One must be thoroughly educated in the subjects he aims to teach, and, of course, the more of general education he has in addition, the better. Foreign and home travel help wonderfully. Tact to lead the odd boy, and firmness to drive the lazy, are essential. An ability to read and understand character, and a love and sympathy for boys one must certainly have. The reason so many fail as tutors is because they do not have the above requisites. Many think that if they are a little older than the pupil and have a few years'

advantage in training and schooling, they are well qualified to teach, and find out their mistake only when their pupil miserably fails in passing his examinations.

Very few men are really fitted to do good work as tutors until they have been out of college a few years, because they lack age, experience, and poise.

The advantages of tutoring are that one has a great deal of time for work in other lines, — unless one has a large number of pupils, — and that the pay per hour or for the time employed is very good; it varies from one to five dollars an hour according to a man's reputation; the latter figure being extreme and paid only for a few hours of intense racking work just before examinations. I know of tutors who earn from $10,000 to $15,000 a year, but the average income is not over $2,500.

A very agreeable form of tutoring is that of foreign or domestic travel with lessons interspersed, but to get this kind of work one must have traveled and be familiar with the countries to be visited, and also have a good knowledge of foreign languages.

On the whole I look upon tutoring, when one is really adapted to, and trained for it, as a very attractive calling.

There is in Cambridge, Mass., a man who is almost an institution. I refer to W. W. Nolen, known to all Harvard men for several generations

as " the widow." He carries on a large tutoring establishment. It is not exactly a school although it has all the equipment of a first class one. His aim in life is to pack a boy's brain with predigested mental tablets and put him through his examinations. His grasp of nearly every known subject necessary to a liberal education and his ability to jam it into the reluctant intellect of half trained boys is wonderful. Just prior to examinations he holds what he calls " Seminars " which any fellow who feels doubtful of his ability to pass can attend at five dollars per hour. These seminars are really rapid reviews of the whole term's work, but he has the extraordinary faculty of putting the whole thing before the boys in a single hour so that few fail to pass. In other words he is a teaching genius, and a professor who listened to one of these lectures on his own course turned away green with envy and despair. Nolen's income must be larger than that of the president of Harvard.

X

THE BANKER

THERE is a dignity and power about the term banker which appeals to all young men. There is a general idea that all bankers are rich and powerful, which is of course natural, for the very word presupposes wealth at hand and under control. There are, however, many kinds of bankers and the word is often ill used and misused. In this chapter it is used to designate the man in the national, state, or savings bank, or trust company. A man may be a banker, according to common use of the term, and still not be at the head of such an institution. That is, it has become the practice to call anyone employed in a bank, a banker, although he is not strictly one; the head of the bank or its owner is really the banker; but we must follow custom.

Now, if one has a desire to be a banker, he will wish to know how to go to work, and what kind of banks hold out the best opportunities for advancement. As a general proposition, one must begin at the bottom and take a place practically at the

foot of the ladder. If he has patience and energy, the years spent in copying letters, making out statements, running errands, making exchanges of collateral, going to the clearing house, etc., are far from wasted. Without knowing it, the boy who goes through this probationary period is absorbing quantities of useful knowledge, which he cannot obtain in any other way. Nothing is more pitiful than the blundering incapacity of a fellow who has been forced into a bank through influence and given a place of power which he has not had the training to fill. He has not learned the rudiments of his business and is at the mercy of every ten-dollar-a-week clerk, who feels that he is superior as to knowledge and experience to the man who gives him his orders. It is injurious to the bank; and the man himself feels it and so loses control of his subordinates. Therefore, he must begin at the bottom, no matter how much money, influence, and power he may have behind him. The time he spends in subordinate positions will depend largely upon himself. I do not mean to say that virtue is always rewarded or that faithful service is always followed by promotion, but it is as a general rule. Certainly slovenly work and inattention are not likely to bring promotion. The boy who works with one eye on his ledger and the other on the clock, or the boy who dodges into the toilet room two or

three times a day to smoke a cigarette, is not in any grave danger of becoming a bank president.

On the other hand, mere perfunctory performance of one's duties rarely results in advance. One must have interest, enthusiasm, alertness. One must be willing to do a little more than his stint; a little overlapping of time and work will bring approval. A desire to know something about the work of the man in the next higher position, a willingness to relieve him of petty details, a readiness to stay at night and let him go home to his family, will not be forgotten when the latter is promoted. It pays to be the understudy of the man next above, or of some man whose position is wanted. Emergencies and opportunities are always coming, and if one is able to slip in and do another's work for a day or two, it counts. Men at the head are watching for good work and signs of promise all down the line. I should say that courtesy, alertness, originality, good temper, willingness, and thoroughness are the qualities for which men of power are always looking.

If one makes up his mind to be a banker and he has the many necessary qualifications, the two questions arise, what kind of a bank shall he try for, and where shall he locate?

Let us discuss the second question first. By it I mean, in the city or country, in a metropolis or

a small town? It is largely a question of taste and opportunity. The rewards are greater and probably more swift in a large city, that is, the financial rewards, but the cost of living is higher and one does not live so well nor so happily. The call for men of first-class ability is greater in cities than in towns; the rapid pace kills them off more quickly. Life in the city is harder and shorter and there is less of the home life. Personally I prefer to live and serve in a city of from 25,000 to 150,000 inhabitants. Cities of this size have most of the advantages of a big city without its drawbacks. Portland, Maine; Hartford, Connecticut; Burlington, Vermont; Concord, New Hampshire; Denver, Colorado; Portland, Oregon; Santa Barbara, California, and many others are fine places in which to live and work. They have an atmosphere that is not found either in smaller or larger places. While the rewards may not be so great nor so swift, there is compensation in the fact that one lives more rationally, more happily, and less expensively.

As to the kind of a bank, there is a wide difference between a national and a savings bank. In a savings bank the work goes on in a stereotyped routine with little variation, while in a national bank or trust company there is more variety and activity. As a general proposition, I should say there is more likelihood of promotion in these

latter institutions than in a savings bank. National banks and trust companies bring one into contact with the mercantile, commercial, and manufacturing world, while the savings banks have principally to do with the wage-earner.

Salaries paid in banks range all the way from $300 a year to $25,000, and the average clerk probably gets about $1,500. Of course salaries vary in different localities. There is so much pressure to get into banks that the compensation of employees for the first few years is merely nominal and hard to live on. Many fellows with well-to-do parents are willing to work for nothing for the sake of the opportunity to learn the business. This is a serious handicap to the poor boy who wishes to learn but has to support himself meanwhile.

XI

THE BOND BUSINESS

WHILE bonds have been dealt in for several generations, the bond business, as it is known today, has existed for not more than twenty-five years. A quarter of a century ago there were not more than a half dozen houses in the business, while now there are a hundred. I am speaking of bond houses pure and simple, — not of houses which have bond departments attached to a stock business, nor of houses dealing extensively in listed bonds.

A bond house is one that handles municipal and unlisted corporation bonds principally. This is a business by itself with well marked lines and limitations. Bond houses buy at wholesale and sell at retail. They watch all the advertisements for sales of bonds by cities and counties, and send in bids for the whole issue. As a general rule they send representatives to attend the sale and look out for their interests. The bidders to whom the bonds are awarded receive a certified copy of all the proceedings leading up to the issue, which they

turn over to their lawyers who make a careful examination to see if everything has been done legally. If the report is satisfactory the house proceeds to take up the bonds and pay for them. Then they are advertised and circularized among customers and clients until sold. The profits depend upon the skill and judgment of the man who makes up the bid, for he has to study the conditions of the market, the value of money, the signs of the times, the wants of his customers, etc. "A bond well bought is half sold." Most houses have two distinct departments, — a buying and a selling department, — and the former takes the judgment of the latter before making up a bid.

Buying corporation bonds is a more laborious and protracted matter. Sometimes the negotiations and examinations cover months, — as in the case of buying a big issue of railroad, electric light, or water-power bonds, — and engineers, lawyers, and experts of all kinds are called in before a decision is reached. Many thousands of dollars may be spent in these examinations and then the proposition be finally turned down, in which event all the expense is charged off to profit and loss. Some houses maintain on their staffs engineers, lawyers, and accountants, and also men who combine the training of all three with great business judgment.

The business of a bond house is sound and safe

if carried on in the right way and with right principles. Nearly every house in the country is made up of young men who served their apprenticeship in one of the three or four largest and oldest houses. New ones are constantly being founded from offshoots of the big houses. Some live, and some die an early death, according as the men who compose them have ability or lack it.

To get into the business one must go into a good house in some minor capacity, and work up. If he has the right material in him it will be noticed; he will not be overlooked. Nowhere is real worth more quickly rewarded. A thorough education is a great help in this business. I have known men of slight education to succeed, but it was in spite of it rather than because of it. An excellent preparation is a course in one of the financial schools attached to our colleges, like the Amos Tuck School of Administration and Finance at Dartmouth.

The pay of a beginner is from $30 to $50 a month. After a few years a salary ranging from $1,500 to $2,000 may be received and from the latter amount it is increased according to the ability and success of the employee. Very large salaries are sometimes paid to able men, and there comes a time when the question of a junior partnership or an interest in the business has to be considered.

XII

THE STOCK BROKER

THE business of the stock broker has a great fascination for many young men, who generally regard it as a quick way to get rich without hard work. Unless a young man is especially adapted to the business I should not advise him to enter the office of a stock broker. Should he be successful and work his way up through the various grades in the office until he occupies the position of floor man, where he has to execute the orders and buy and sell stocks and bonds for the firm upon the floor of the stock exchange, he will find it a great strain on the nervous system. The temptation to speculate or gamble on his own account is one very few are strong enough to resist. The percentage of brokers who trade successfully for themselves is extremely small.

The work of a stock broker, when conducted on strictly business principles and confined to executing orders for customers, is legitimate and can be made profitable. If the young man has push,

energy, a strong head, a good stomach, and plenty of nerve, he may make a success of the business as of any other he might enter. Unless he has all these requisites he had best give it a wide berth. "In the street" the air is always full of tips, and it is hard to resist the temptation to try a flyer now and then.

If one decides to become a broker, the best place for him to begin is in New York, as all other exchanges are side-shows and the New York exchange sets the pace for them. It is not particularly difficult to get into a broker's office in some minor capacity, and then it is simply a question of work, patience, and ability. The pay of young clerks is small, — five or ten dollars per week, — and from that sum it runs up to many thousands yearly. A man may be a broker and not go on the floor himself, executing his orders through other brokers. It takes a very bright, clear-headed man to make a success on the floor; a careless man would cost his house a vast amount of money. If the young man does not go into the exchange, but confines himself to the office, he will find such work oftentimes very exacting and full of mental anxieties. The salaries paid by brokers are considered liberal, and when times are good the broker who is generally an open-handed, jovial sort of man, is particularly liberal with his clerks.

Stock brokers, that is those who are called

legitimate ones, hold memberships in recognized stock exchanges. In order to become a member in one of these exchanges, — that is to have what is called a "seat," which permits the broker to buy and sell stocks and bonds with his fellow members on the floor of the exchange, — one has to be proposed and elected in the same way that he would get into a club, and he also has to buy a seat. In New York at the present time a seat in the stock exchange is worth about $90,000; in Boston about $25,000; and in Philadelphia about $18,000. The price of these seats varies considerably according to the times, fluctuating many thousands of dollars. The broker also has initiation fees to pay and has to pass a rigid examination. The rules of financial and personal conduct are very stringent, and are supposed to be observed. The penalties for infringement are severe.

The dangers and temptations surrounding this business are so great that unless the young man feels he has a special fitness for it, and unless he has plenty of backbone, he should hesitate about adopting it.

XIII

RAILROADING

THE railroads, being the great highways of travel and commerce, are among the largest business undertakings of the country. They require vast armies of employees and in their management and direction call for talent of the highest order.

The amalgamation of great systems, which has been, and still is, going on, means the placing under a single man, the control of thousands upon thousands of miles of road and the direction of masses of men as large as the Army of the Potomac. The wonder is that men of sufficient caliber can be found, and again the wonder is that when found they can stand the strain.

It will be seen that the prizes in this profession are large and the heights to which one can soar are tremendous. Few men can become Goulds, Huntingtons, Hills, or Harrimans, but there are many positions not quite so exalted as theirs with a high degree of responsibility and large pay.

The railroad men of the country form a sort of

guild. Their work so crosses and recrosses that they are brought in contact with each other constantly, and probably no single class of men are so well known to each other. The able men are marked and the systems have the best ones spotted for future acquisition. No price is too high for a big road to pay for an exceptional manager or traffic man. Salary is of little account compared to the value to the road of getting the most efficient service.

But these great and well paid positions are not won in a moment, or by any trick of legerdemain. They are gained by long apprenticeships and a thorough knowledge of the whole business, from the work of the humblest section hand. If one talks with the great railroad men he will find that many of them started as section hands, brakemen, firemen, or peanut boys. It is not necessary to explain to them the number of ties to the yard required to make a good road, or the working of an air brake. They know all about it because they have lived it. President Spencer of the Southern, who started by carrying a chain, President Cassatt of the Pennsylvania, who began as rodman, and President Mellen of the New Haven, who filled a clerkship in the accounting department in his early years of railroading, are examples.

The would-be railroad man must start at the bottom, perhaps going into the operating depart-

ment and working for a year or two on a train or locomotive, or into the engineer's gang on the right of way. He should next get transferred to the offices to learn railroad accounting which is complicated and unusual, and, if possible, should have experience in both the freight and passenger departments. After he has worked five or ten years in these various ways, he will probably have found out whether he is a born railroad man or not; if he is, he will have been singled out by some department head and will have been picked for a good position; if he is not, he will remain a clerk in some corner at a moderate salary.

As in any other calling, there is no royal road for those who get their heads above the crowd. The essentials for success are hard unremitting toil and a natural adaptability for the business, but the man who best equips himself with a general knowledge of all the operating and accounting branches has a tremendous advantage and frequently outstrips the genius who does not know the practical side. In nothing is knowledge more necessary. A railroad cannot be run by guess work and the fakir is quickly detected. Railroading has been reduced to an exact science, and the man who can haul his ton of freight for the lowest price per mile, or the man who can get the greatest number of heat units out of his coal, or the fellow who can swing the most freight to his

system, is the one who gets the prize. Competition is intense, the sums handled are enormous, and the profits come by saving a fraction of a cent on a ton.

If I were going to take up railroading as a profession with the idea of aiming at the top, I would prepare myself by going, at least, through the high school. Even a college education will not come amiss, but it makes a man start his apprenticeship rather late for he ought to begin it by the time he is nineteen and if he goes through college he will be, at least, twenty-one before he is ready. However, one can do very well with a good high school education as a basis. Of course I am not speaking of a man who has no ambition above being an engineer or a conductor. For these positions a grammar school education is sufficient, and I am free to confess that many of the men who start out to be division superintendents would do well to confine their hopes to the more lowly but not less important and honorable posts of engineer and conductor.

XIV

FIRE INSURANCE

PREPARATION, in the sense that preparation is made for the professions, is practically unknown in fire insurance. Some of the colleges and universities give courses of lectures upon the theory of fire insurance, and at least one institute of technology affords a four years' course in fire protection engineering, embracing instruction as to chemical and mechanical causes of fires and practical methods of prevention and suppression. Most of those who have achieved success in the business have laid their foundations in the school of experience. Chance and adaptability, rather than early choice and special preparation, have determined their careers. It is bound to be largely so for years to come. Given the proper balance of ability, integrity, and application, the best preparation for either an agency or a managerial career is actual office experience.

The essential qualifications are varied. Few occupations require more tact, intuition, or general information. That agent will be most successful

who is best able to discern and meet the needs of his customers, is quickest to detect a losing enterprise and the moral hazard lurking behind the weak or vicious mind, or in other words, who is most competent to distinguish between hazardous and non-hazardous conditions, operations, and materials.

The field man or special agent, who comes in contact with the local agents, inspects the risks, and adjusts the losses, should unite with the foregoing qualifications a working knowledge of bookkeeping and insurance law, and be a good detective besides. Agency and home-office training alike are to him invaluable.

The general agent has charge of a state or department, organizing and directing the agency force therein, and should combine an agent's knowledge with some of the qualifications of a company manager. His career generally begins in a local agency.

Successful company management requires executive ability of a high order, together with a banker's instinct for the safe and profitable investment of funds. The company manager of today has either built up the company himself or by faithful and competent service won promotion from an appreciative directorate.

The rewards are as varied as those of any other occupation. The local agent's compensation is a

percentage of the premiums, the amount depending both upon his field and his ability as a solicitor. The premiums collected belong to the companies he represents, and must be accounted for at stated periods with remittance for all but the agreed commission. Sometimes the commission is "flat," that is, merely a percentage of the net premiums. Sometimes there is added a "contingent commission," or a percentage of the profits. The theory of the contingent commission is that it gives an agent an incentive for a more careful selection and distribution of risks, an incentive to sacrifice immediate personal gain for a prospective profit through more judicious underwriting. The general agent is compensated for supervision by receiving a larger commission, on either the flat or contingent basis, from which he pays the usual agency commissions to the agents of his territory, or by an over-riding commission on the business they produce, or by a salary. Salaries are the rule for company managers and field men.

The purchase of an agency is a common occurrence. It is a three-sided transaction, the consent of the companies being essential to a transfer. Apart from the office furniture, all that is involved is the good will of the seller and the record of policies in force, which the buyer expects to renew as they expire. Little that is tangible is actually transferred, yet it is usually

the buyer's fault if the transaction does not result to his advantage, if he has paid a fair price. The basis of sale is the income of the office. The buyer should not make the serious and too common mistake of undertaking to conduct an agency without adequate capital. The usages of the business are such that a working capital is just as essential as for any mercantile business.

XV

LIFE INSURANCE

THE subject of life insurance has been brought very prominently before the public the last year and the tremendous disturbance, which has taken place in life insurance circles, has had a very direct bearing upon the insurance solicitor. Unquestionably, the agitation has resulted in a decrease in the number of policies written and many agents have found it next to impossible to earn a satisfactory living. This situation is probably only temporary and good will come from the upheaval. The complexities of modern life make increasing demands upon the specialist and the value of life insurance as an institution when represented by reputable men cannot be disputed.

The young man who contemplates entering the field as a life insurance solicitor should remember that the days of genteel brigandage and seductive estimates have passed. He should analyze himself to find out whether he has sufficient tenacity, honesty of purpose and knowledge of human

nature to be a success in that calling. A lack of any of these qualities is sure to result in disappointment, not to say failure. Mediocrity in the life insurance business means the loss of self-respect, and without self-respect the young man cannot successfully approach the class of people, which it is desirable to cultivate.

The value of a good class of clients or customers cannot be rightly estimated by the beginner. It becomes yearly an increasing force in social and business relations and largely determines the permanent returns upon his life's work. A clientage which cannot be stampeded or alienated is invaluable.

While it is true that men who have not succeeded in their chosen occupations have made records as insurance solicitors, it is not true that the business is an automatic proposition. The successful insurance man must be in touch with his constituency; he must be active and industrious, with tact enough to impress these qualifications without evidence of supreme selfishness; he must acquaint himself with fundamental principles; he must be able to analyze conditions fairly and considerately and he must have absolute confidence in the contract he is offering. With these pre-requisites, the business of life insurance offers to any energetic man, a vocation which combines independence and an income measured by his

ability to gather about him and hold permanently a conservative clientage.

There are few obstacles in the way of the solicitor who is armed with the energy to meet conditions as they present themselves and who turns from disappointment as he would pass an obstruction in the street; who does not strand upon the sand-bar of "mañana;" who discusses the subject only to a point which is inside the limit of his customer's patience; who confines his argument to the capacity and necessities of the client; and who avoids perplexing and confusing an interested party when he should simply instruct him. He should remember that, prospectively, a good risk is like a good steak, to be neither over nor under-done. Above all, the beginner should understand that the true measure of an agent is quality rather than quantity. This distinction affects not only his local status, but has much to do with his advancement with his company.

The question of compensation is becoming most perplexing in consequence of the radical reforms provided for by the acts of the New York Legislature which became operative on January 1, 1907. These reforms have a very practical bearing upon the subject inasmuch as the life insurance companies are by these acts absolutely limited in their expenditures to the so-called "loading" of the premiums for expense, of which commissions

to agents are for the first year the principal factor. Under the new law, no concession can be made to the young agent in an untried field as heretofore. In the past, such concessions have been a great stimulus to the young man and have encouraged him to persist until he could become self-supporting. Commissions have been reduced so that now they are about equal to those paid by the few ultra-conservative companies, who have always paid more attention to solvency and sound methods than to bigness.

Conditions are greatly modified by the prohibition of bonuses or rewards for increased business in agency fields. These bonuses have been demoralizing and were covered up by the deferred dividend system, which was devised for the purpose. These and similar restrictions pertaining to New York companies, as well as every company which qualifies for New York business, seriously hampers the suburban agent, or one who has territory in a section or state with scattered population, but they work in favor of the agent who has the population of a small state within easy reach, as he has the minimum of expense with the maximum of opportunity.

The constitutionality of the New York law has been questioned and the practical test of adjustment to new conditions may tend to amendments which may somewhat modify the present rules.

WHAT CAN A YOUNG MAN DO?

Under the present circumstances and until conditions are more settled, the life insurance field does not offer great attractions to the young man, as far as soliciting is concerned. Looking to the future and bearing in mind that matters of this kind generally work themselves out in a fair and equitable manner, I should say that it presents an average opening to the average man. It holds out inducements mainly to those who, by special qualifications, can ultimately command preferment.

XVI

THE MANUFACTURER

THIS is such a broad subject that it is very hard to treat of it in a brief article of this character. There is cotton manufacturing, woolen, iron and steel, to say nothing of the multitude of small manufactories of infinite variety. I am simply going to try and treat of it very briefly as a general proposition.

The young man who intends to go into manufacturing for a livelihood should have good business ability, a sound education, tenacity of purpose and, of course, a more or less mechanical taste. He ought at least to have a common school education and then if he can add to this a course at some institute of technology it would be of immense benefit to him. There are in various parts of the country, notably in Lowell and Philadelphia, technical schools which are not so broad or general in their training as institutes of technology, but which aim to train men for manufacturing pursuits. The course in these schools is shorter and the training more directly applicable

to manufacturing. After obtaining a common school education and a course in some one of these technical schools, or an institute of technology, a young man who intends to be a manufacturer ought to go directly into the manufacturing establishment of the kind which he has selected and learn the business from the ground up.

There he unlearns the leisurely student habits of late rising and late retiring. He gets the jump of the morning whistle into his pulse and learns to labor, not as the spirit moves or inspiration urges, but systematically each hour the wheels turn. His physical being attunes itself to the moving machinery and later, almost by reflex action, he works simply because it is the time for working and the habit then formed of early rising becomes throughout life a necessity.

Again tiredness at the end of a day's work in the shops makes him retire early and sleep soundly and the precious habit of sleep becomes ingrained. The enthusiasm of newness and variety fades after the first week or two and then commences the hardest time of his career — especially if he has been delicately nurtured. But in the daily work he sees the wastefulness and leakage of each department, carelessness of employees, dishonesty possibly, all of value later. Further he knows each machine, vat, dye kettle, wheel and utensil used in the process and in later years

when confronted with labor questions, strikes, etc., can fairly and quickly estimate the value of complaints and possible adjustments. Again the largest part of successful patents come from practical people — a few come as "happy thoughts" — but generally they come from those who know from A to Z the methods previously in use. In later life, the wider experience and clearer lights thrown on this early background will suggest changes, novelties, economies and possibly patents. He should begin at the very first rung of the ladder, learn the business in its elements and no department or branch of it should be unfamiliar to him. After having passed through the various departments he should go into the office and serve a term there, learning the system of accounts and the methods of handling the business end of the profession. The keynote of manufacturing to-day is the cost sheet. After going through the several departments he should work on detailed cost sheets for several months. This experience will be invaluable. Very few of the smaller manufactories keep details of cost — they estimate — and as they are largely engaged on novelties can afford to disregard leaks for a time. In all "works" the cost production should be calculated for each successive department so that if an article is spoiled or defective the cost entailed up to the

point of discovery can be seen at a glance. By this time he has not only obtained a general knowledge of that particular manufacturing industry, but he has acquired a grasp of business principles and will be competent to take a position as overseer or manager of some plant and from that time on his future is in his own hands. It depends upon his ability and his opportunities.

Most of our great manufacturers to-day are men well advanced in years, who have acquired their education in the school of experience. Not many of them had technical educations so that the man who can start in to-day with a technical education and add to it the regular training of business manufacturing ought to make rapid progress.

This country is so full of men of inventive genius that new manufacturing enterprises are constantly being started. You are constantly hearing of new kinds of engines, automobiles, bicycles, baby-carriages, mechanical toys and electrical devices. All of these have to acquire manufacturing plants and men of trained skill to produce them. I should doubt whether the supply of really trained men is equal to the demand. It doesn't do in this generation for a manufacturer to stand still. We have the active competition not only of our very inventive people, but of the Germans who are up-to-date and progressive,

and one must be constantly on the look out for new devices, for methods of increasing the amount of produce, for more efficient machinery and all sorts of labor saving processes. It is the man who can save the fraction of a cent per pound in production who becomes a successful manufacturer, and who makes his mill stock advance in the markets of the world.

During the next twenty years a great number of men of to-day must, in the nature of things, find occupation, not only in the direction and management of the manufacturing industries already established, but also in the organization and development of countless new enterprises made necessary by the growth of the country and the rapidly changing conditions of modern life. Notwithstanding the fact that the staple lines of manufacture are more or less absorbed by the trusts, the present day wants of mankind are constantly creating new lines in almost endless number. For this reason I am an optimist and believe on the whole the opportunities for young men to start in the manufacturing line and make a success are greater to-day than ever before and I could cite a good many instances to sustain this statement. The American market alone is so big that if by skill and care a man can turn out a single article, if it be only a clothes-horse, or a baby-carriage that is a little better than others

are manufacturing for the same money, the reward is sure to be tremendous. In addition to this there is the enormous possibility of the foreign market and we have only touched the edge of that as yet. I have in mind a number of men who five years ago were practically penniless and who are now very well off and still making money. These men have either increased the product of some staple article or have taken up some new device which has found a ready market.

The young man who starts in to learn the business of a manufacturing plant would get probably but a few dollars a week for the first few years, but it will pay him to serve this rugged apprenticeship. When a boy actually gets into the works and puts on his overalls and jumper it is a tremendous change from his college career. Soiled hands for college graduates are sometimes a sore trial and associations with men of coarse language and habits are for some fellows very trying. The man who wants to succeed must endure all this with more or less complacency. It is a gruelling time, but it will have an important bearing on his future. When he gets to be an overseer he will probably be paid about $18 to $50 weekly and as the head of a mill he will possibly get anywhere from $5,000 to $25,000. When he becomes a manufacturer and owns

his own plant the returns, of course, depend upon his ingenuity, ability and many other considerations. The successful manufacturer makes money rapidly.

XVII

THE BUYING AGENT

THE buying agent's occupation is new. He has an open field with practically no competition. Spasmodic efforts have been made by women to do shopping for others of their sex at a distance, but as far as I know, no man has ever made a business of being a general agent or buyer on a large scale. It is a business which could be successfully carried on both in the city and the country.

My meaning can best be explained by illustration. Suppose a bright young fellow were to open an office in Boston with a stenographer and a card-index system of accounts. Let him advertise in the city and country papers that he would act as buyer or agent for the purchase of anything, from needles to real estate or bonds. He would have to post himself in all kinds of business, and be prepared to turn, at short notice, to just the place where the commodity sought could be bought most advantageously. He should have at hand

catalogues of all kinds, and he should get acquainted with men in every branch of business. In a short time, through his acquaintance and frequent purchases, he would be able to get liberal discounts, of which he should give his customers the benefit. In this way he would be able to buy, plus his commission, for less than the people in the country could buy plus their fare and expenses. As his business grew he should occasionally go into the country and meet his customers. In a short time his business would become self-advertising, for one customer would pass the word along to his neighbor, and if the buyer was square and really got the best for his customers at the least possible price, he would soon have all he could do. The possibilities of this line of work are great, and in time the buyer or agent would probably have a regular bureau with a corps of trained assistants. He could then send out his own catalogues and price lists, and his business would become a recognized institution.

The plan might also be reversed. For instance, a man in the country could set up as a buyer of farm products for people in the city. He could furnish families with eggs, poultry, apples, potatoes, etc., or he could buy at wholesale for stores and jobbers.

To do this work successfully a man must first be honest and give his customers a square deal.

WHAT CAN A YOUNG MAN DO?

His business reputation would be his capital. He must have the trading instinct and be an indefatigable worker.

Who will be the first to try this scheme?

XVIII

THE CHEMIST

WITHIN the past thirty years a comparatively new field of work has been opened to the young man, namely, in the domain of chemistry. To one who is not familiar with the subject, it is astonishing to learn of the manifold developments of this science as a practical aid in the industrial world. To the young man looking forward to a career in chemistry, opportunities are being offered in many diverse lines. Discoveries in the line of commercial chemistry in the last fifty years border on dreamland. From such an apparently useless substance as coal tar the most wonderful and remarkable commercial products have been obtained by great chemists. One man has been knighted simply for his discovery of aniline purple, a product of coal tar. I refer to Prof. William Henry Perkin.

In the first place, there are the great establishments devoted strictly to the manufacture of chemicals, — some of these manufacturing what are called "heavy" chemicals, i.e., chemicals

sold by the ton or carload; others, "fine" chemicals used in smaller quantities for pharmaceutical and similar purposes. All of these establishments, as a matter of course, employ chemists, some of them in charge of the works, others employed in the laboratory for making analyses of the raw materials, the finished products, and other tests for the control of the chemical operations carried on in the factory.

The growth of the chemical industry in this country has been steady and rapid. Not many years ago all of our soda ash and bleaching powder, two of the principal commodities in heavy chemicals, was imported. Today the imports have fallen to a fraction of what they were formerly.

The output of sulphuric acid, another great staple commodity, has increased enormously, and what is true of these great staples is true in lesser degree of other lines of chemicals. Now all this advance in chemical industry means an increased opportunity for the young chemist and the chemical engineer. The great leaders in the chemical industry today, however, are the Germans, and in one line of work, the coal-tar color industry, they have nearly complete control. Some of their achievements in this line are almost fabulous. The industry has as yet but a slender footing in this country, but it may later assume large pro

portions, with corresponding opportunity for the young chemist.

A still more recent development is that of electro-chemistry. This concerns itself particularly with those chemical reactions that are brought about by the electric current. Several important industries are based on this, and near Niagara Falls a whole colony of electro-chemical works has been established. The American mind and disposition appear to be particularly well adapted to the study of electro-chemistry, and with our natural bent for the work and our superb resources in water power, this industry is certain to make great advances in this country. It offers an attractive opening for the young chemist.

Another great field for the chemist is in the chemical fertilizer industry. Our agricultural interests demand an enormous and ever-increasing quantity of these products. Fortunately we are well supplied with deposits of phosphates, and the conversion of these into fertilizers, including the manufacture of the necessary sulphuric acid, constitutes a great industry, needing the chemist's supervision and control.

Besides all these, which are strictly chemical industries, there are many others which depend to a certain extent on chemical processes. Among these are dye works, print works, metallurgical works, tanneries, distilleries, etc., and now all

well-ordered establishments in these lines employ chemists.

A few men go into the field as analytical chemists and experts, and for those whose talents lead them to a less practical but more strictly scientific career, there are opportunities in the profession of teaching, in work on the government surveys and testing bureaus, and in the numerous agricultural experiment stations scattered over the land.

The young man intending to follow a career in chemistry would do well to remember that, unless he proposes to devote himself strictly to scientific labors, work in the chemical laboratory should be considered as a stepping-stone only to some more remunerative position. Work in the laboratory is confining and often trying and should not be attempted by one not in good physical condition, but the labor performed here generally gives one a peculiar insight into the operations carried out on a large scale, and especially fits him for the supervision of such operations later.

In this connection it is always well for the young chemist to prepare himself in matters mechanical. Nearly every establishment has a steam boiler, engine, machinery, etc., and a knowledge of these everyday appliances as well as of electric generators, motors, and wiring, will always be useful and frequently absolutely necessary.

In a broader aspect, there is always in the profession the opportunity for the chemist to find some new product or some improvement in his processes, and perhaps to acquire something of very great value. This should always be among his higher aims.

For preparation in this profession, all of our universities, technical schools, and larger colleges offer excellent courses, those given at the Massachusetts Institute of Technology and at the Johns Hopkins University being especially worthy of recommendation.

To the young man looking forward to a professorship, I would say, after a course here, go to Germany. Besides the broadening effect of life in a foreign atmosphere, to come in touch with German investigators and become imbued with their spirit and methods is of great value.

Lastly, I would say to the young man who hopes to make a success in chemistry that he must bring to it a genuine love for the work. This is true of most occupations, I think, but of none more so than of the chemist's.

XIX

THE COMMERCIAL AGENT

A VERY enterprising and farseeing friend of mine some years ago, during the first McKinley administration, strongly urged upon the president the necessity of sending commercial agents to foreign countries, particularly to Japan and China. His plan was to have sharp, shrewd business men, who would do a work entirely distinct and apart from that which is done by our consuls, who would make a careful study of the countries which they visited, seek out the best markets for our products, examine into the most desirable way to present them to foreign peoples, and advise as to how they should be put up and shipped. Our manufacturers frequently fail to meet the foreign demand because they do not put up the manufactured article in the form desired by the foreign buyer.

Since that time this very method has been adopted by France and Germany, and has been worked with success. I do not know the following to be a fact, but I believe that there are commer-

cial agents in every part of this country today, representing Germany in particular, constantly notifying the German business men and manufacturers of places where they can put their goods. The Yankee has always been noted for his enterprise, but I think he has been distanced in this by the German and the Frenchman. Our consuls do more or less of this kind of work, but their other duties prevent them from getting the best results. We have many products which we could sell in various quarters of the globe if we knew just when and where to ship the goods. These commercial agents should labor in conjunction with the consuls, and not be merely collectors of information. They might even be salesmen on a large scale. If the manufacturers and the boards of trade of the country would bring this matter actively before congress, I have no doubt that a system could be established, which would offer great opportunities for young men of the right temperament and training.

XX

THE ADVERTISING AGENT

AN advertising agent is one who takes a business man's advertising appropriation and spends it judiciously. A friend of mine who is in the business says, "It is a good business to grow old in." Competent advertising men are well paid and few leave the business. All that there is in a man, of tact, knowledge of human nature, honesty, and hustle, is brought into play in handling large accounts. There are many grades of work, as the advertising field is becoming more and more specialized.

An agent who intends to stay in the business, who takes it seriously, and who lies awake nights planning how to sell his customer's goods, has the creative joy of the artist, and the satisfaction of the merchant who sees his goods leave his shelves.

There is just enough of the dirt and grime of printer's ink, and of contact with labor unions and skilled manual toil, to keep one's feet squarely on the earth, and to correct any tendencies to bookishness and day dreaming. The smell of

printer's ink, and the association with those canny folks, the typesetter and the stereotyper, lend an air of Bohemianism to the work, that the young lawyer never gets from the musty books, or the doctor from the grim surroundings of the hospital and operating room. If one has a turn of mind toward mechanical things, and finds recreation as District Attorney Jerome has found it, in a lathe, the subtleties of newspaper illustrating, half-tone cuts, the proper coarseness of " screen " for newspaper or magazine work, even the technical vocabulary needed to instruct artists who are to carry out advertising ideas, give one the feeling of having learned a trade, and of belonging to the ancient guild, the typothetæ.

From the bare essential knowledge of sizes and faces of type, — Gothic, DeVinne, agate, brevier, long primer, etc., — one is apt to take pleasure in extending his exact information to the history of printing, and to the collection of finely printed books and choice bindings. No more delightful body of men can be seen in America than at the meeting of the Grolier Club of New York, which has among its members practical printers like DeVinne, makers of giant presses like Hoe, and leading advertising men.

On the remunerative side, advertising managers of newspapers and magazines, who must be men of unusual ability, receive salaries ranging from

$4,000 to $15,000 a year. Advertisement writers are paid from $25 to $30 a week at the start, and experienced men from $25 to $75 a week. The advertising manager of the "New York Journal" receives $12,000 a year. Another advertising manager of a certain group of publications received $15,000 a year, and recently resigned his position to take another at $25,000 with an interest in the profits, which guaranteed an additional $25,000.

Mr. Gillam, now the advertising manager of the "New York Herald," was Wanamaker's best advertising writer, and was said to receive $10,000 a year without the investment of one single cent of capital. These are, of course, the high lights of the picture.

Assistants to advertising managers of periodicals get from $40 to $100 or even $150 a week; $100 is the usual salary of heads of advertising departments on papers with a circulation of over 150,000. The salary paid to solicitors is a variable quantity. Capable men earn all the way from $25 to $100 a week. The novice must start at something like $15. If he has the right sort of stuff in him he will, at the end of the first year, be able to earn from $25 to $30 a week. The large department stores employ advertising managers who have from one to twelve assistants, and the salaries range from $1,500 to $10,000 a year. The rate,

or contract men in agencies, who negotiate with the newspapers for space draw salaries ranging from $25 to $75 a week. Bookkeepers who are familiar with agency matters draw from $1,500 to $5,000. In the checking department, the man in charge receives from $20 to $30 a week.

To succeed, one needs more horse sense than mere cleverness; the ability to write simple, convincing prose rather than sonnets; a wide acquaintance among newspaper publishers and advertising managers. Personality counts for much, as all advertising accounts are placed by favor, on the theory that one agency is as good as another. Other essentials are good trading ability for getting bottom rates, and a knowledge, not only of the circulation of the various newspapers and magazines throughout the country, but of its quality and what part goes into the homes, what papers the purchasing classes read, and what papers have merely sensational street sales.

XXI

JOURNALISM

ONE of the mightiest forces of the world today is the newspaper, and it also stands for one of the most important business enterprises of the age. In the United States nearly 40,000 persons are employed in editorial and reportorial work alone, and the importance of the newspapers as a factor in the industrial and commercial life of the nation is indicated by the fact that they expend annually nearly $20,000,000 for news; about $85,000,000 for salaries and wages, and $35,000,000 for white paper, and receive for subscriptions and advertisements respectively nearly $100,000,000 a year. It costs today about $1,000,000 to establish a new daily paper of the first rank.

Journalism is at once a most fascinating and a most exacting vocation. It demands the very best that is in the man or woman who embraces it, and its pecuniary rewards are not always commensurate with the amount of hard work, knowledge, and initiative that is put into it.

As in most other callings, there is no royal road

to success in journalism. Indeed, there are few occupations in which the individual workers find their own level so quickly and inevitably as in the newspaper business. There is no place in it, — no permanent place, — for the lazy and incompetent, and the young man who enters the office of a newspaper as " cub " reporter or errand boy can never reach the position of managing editor or publisher unless he possesses the inherent ability, backed by the requisite degree of perseverance and ambition.

There are successful proprietors and managing editors of great daily newspapers today who began life as reporters or compositors, and their achievements are a challenge to the young men from college or high school, who are just entering journalism. There is no good reason why history should not repeat itself along these lines.

One of the fascinations of the journalistic life is its constant change. With the dawn of every day the mirror is again held up to the world at a new angle, and the edition of yesterday is forgotten. There is a perennial interest in daily taking up these new threads of thought and building up something for the present, while preparations for the morrow go on apace. It is always today and tomorrow in the office of the daily newspaper, never yesterday.

All this, coupled with the pleasurable knowledge

that they are writing "snappy" reports or penning thought-compelling editorials for perhaps a million readers, makes modern journalism irresistibly attractive to hundreds of young men who stand on the threshold of business life, or who, perhaps, have not succeeded very well in other vocations they have chosen.

Moreover, with the growth of our country and the expansion of the newspaper's "sphere of influence," the profession of journalism has constantly increased in dignity, until today the most intimate friends and confidants, as well as favorite appointees, of presidents, governors and captains of industry are journalists. This is another circumstance that has not escaped the observation of the would-be reporters, editors, and correspondents.

So general is the desire to engage in newspaper work on the part of both young men and young women that every important daily paper always has a long "waiting list" of candidates for reportorial honors.

Save in very exceptional cases, every candidate for admission to a newspaper staff has to begin somewhere near the bottom of the ladder. Some introduce the entering wedge by serving as local, college, or high school correspondents for a daily paper, in this way making the acquaintance of the city or managing editor, and giving the latter an

opportunity of learning something of their journalistic mettle. These contributors often have the right of way when there is a vacancy in the regular reportorial staff to be filled, perhaps taking up the work immediately upon graduation.

For the ambitious young man who has not these particular opportunities of attracting the attention of the editors, an excellent plan is to do reportorial or "special" work for some local weekly paper for a while, until he familiarizes himself with at least some of the requirements of an exceedingly exacting business. Or he can try his hand as a "free lance" in the city for a time, writing for the papers special articles of various kinds and submitting them to the editors until they find among them something that is "exclusive" or interesting.

In these days, there are also schools and colleges of journalism, where the young man or woman — and modern journalism has its distinct corner for women — may receive a theoretical training for newspaper work that possibly will make it a little easier for them to begin the real work of their chosen vocation.

Unless conditions change very radically, the would-be apprentice in newspaper work of the future will be obliged to decide at the outset whether he is to chose "legitimate" or so-called "yellow" journalism for his field. He will be in

much the same position as the young man who desires to follow a financial career and who has his choice of affiliating with the "regular" bankers and brokers or throwing in his lot with the "bucket-shop" crowd. He can hardly hope to keep his equilibrium in each of these distinct departments of journalism.

As has already been noted, the material rewards of the newspaper business are not abnormally large, as far as the rank and file of its workers are concerned. The standard of compensation is somewhat higher than it used to be, but for every editor or business manager who receives $10,000 or $15,000 a year, there are hundreds of reporters, editors, and correspondents whose salaries are nearer $1,000 or $2,000. And after all, there is a good deal of mental and physical drudgery and uncertainty about newspaper work and it makes some of its followers old before their time.

However, the real journalist, like the average teacher and clergymen, does not believe that financial rewards are the only ones to be sought for in life. He willingly gives something on his own account for the good of humanity.

XXII

THE DENTIST

THERE are perhaps more things to be thought of, by a young man searching for his life work, in the consideration of dentistry than in the consideration of many other callings. I shall try to point out some of the prime requisites for a dentist as they appear to me.

He must have a good moral character for as a successful practitioner he becomes, like the family physician, the confidential adviser of his patients to a greater or less extent. A good physical constitution is also a necessity for his work is very trying and nerve racking, and a man should have enough reserve energy to be able to control, not only himself, but the suffering and nervous patient as well. More dentists fall by the wayside for lack of a good physical foundation than from any other cause. He must have mechanical ingenuity for that enters more largely than anything else into his work and is, perhaps, the prime qualification. Along this line the dentist finds

himself daily taxed to the utmost. He must have a liking for medicine, for that plays a large and very important part in the practice of modern dentistry. He must, if he would attain the best success, be well and broadly educated; not because the broad education makes the man any better dentist, but because the only man who really makes a financial success of dentistry is he who, by education is prepared to associate and mingle with the well-to-do class of people who go to make up a lucrative practice. They are the individuals who have time and money, and the disposition to spend them on the care of the teeth. The poorly educated man is the one who, in most cases, is obliged to content himself with a practice among people who have none of these essentials, and, with that class of people, dentistry becomes the worst sort of drudgery.

A young man entering dentistry should not begin practice too early in life, for people will lack confidence. It would be far better in the end for him to have spent his early years acquiring a good preliminary education. In the course of these years, the student is at the same time forming a circle of acquaintances, which will in the future make the nucleus of his practice, providing his essential qualifications are not lacking.

Dental schools are all looking toward the requirement of an A. B. degree for admission as

the one thing necessary to raise the standard of dentistry. The annual expense of attending the best dental schools, requiring three years, is about $600, including books, etc. A young student can put as much into his original supply of dental instruments as he pleases, most of which he will find useful in future practice. Fifty dollars will cover actual necessary cost. When the graduate is ready to begin practice $500 will furnish the outfit that is absolutely essential. This amount added to the cost of his education will make a considerable money investment, and if a man expects any kind of a return on that investment he must make his practice a success.

Up to the present time dentistry has been considered rather in the nature of a luxury, but now is looked upon as a prime necessity to good health; so much so that even the United States army has dental as well as medical surgeons. It seems as though the money return to the average practitioner should be on the increase rather than on the decrease.

A young man with limited means can perhaps do better to associate himself with an older practitioner who has more business than he can personally attend to, and by caring satisfactorily for such overflow, it will gradually become his own. The acquisition of a lucrative practice is otherwise rather a slow process, unless the young

man starts where he has a large circle of friends to draw from.

Dentistry, like everything else, has its disadvantages which the investigator will, of course, be interested to know about. The dentist is in constant danger of contracting all sorts of diseases from the continual inhalation of the breath of patients. The danger of contamination from blood poisoning is ever present for the dentist's hands must needs be frequently in contact with saliva and unclean instruments, and germs are ever ready to seek out the cracks and cuts on his hands. Worst of all, if such misfortune does befall the dentist and he is compelled to cease practice, his income stops completely and, if the illness be long protracted, his patients drift away to the other man, for dentistry like sickness cannot await the pleasure of the doctor; and when the dentist returns to his practice he finds himself again very much of a beginner.

XXIII

BOOKKEEPING

TO a young man looking for the road to business success the path of the bookkeeping department does not always seem alluring. Yet, for the right person, bookkeeping has its charms and it is very liable to lead to something better. Its importance is recognized by the heads of our high schools and colleges, and bookkeeping and accounting are included in the courses of most of these institutions, as well as in the special business schools.

The systems taught in the various schools may differ, but if a young man thoroughly masters the elements of bookkeeping, it will not be difficult for him to understand any of the many forms which business houses find it expedient to employ.

The necessary qualifications of a successful bookkeeper are a cool head — to guard against mistakes, a quick eye — to discover errors, and a willingness to work hard.

An unfavorable impression of the position of a bookkeeper is often gained from contemplating

the small army of bookkeepers who, for about ten dollars per week, are kept busy all day long recording in a mechanical manner only one small part of the day's transactions, and who lack the ambition to acquire other knowledge of the business than enough to enable them to accomplish their routine work.

But a young man, in order to obtain a correct idea of the importance of the bookkeeping department, should look to the head bookkeeper who, from his understanding of the system, is able to take the totals obtained by his subordinates and from them to compile a complete summary, and to furnish to the managers of the business statements showing the results of the different departments, thereby enabling the managers to see from what channels their profits are derived. Such a man is valuable to a concern and can command a good salary, and furthermore, from his thorough knowledge of the business, may be found worthy to be admitted into partnership.

Any young man who starts in the bookkeeping department may be sure that the time which he spends in this department will not all be wasted, even though he should shortly be given a position in more congenial lines of the business; for many successful business men have served an apprenticeship in the bookkeeper's cage, and the knowledge of accounting, and the habits acquired of

accuracy and careful attention to detail have been invaluable to them later in conducting large business interests.

The same rule applies to bookkeeping as to all other occupations, opportunity for advancement is there. Success depends upon the man.

XXIV

STENOGRAPHY

STENOGRAPHY is sometimes called the "winged art," and when I see the fingers gliding swiftly over the paper and covering it with quaint little figures, dots, dashes, and curves, it seems an appropriate name. The expert stenographer is a wonder to me. I believe I could never learn his art. The lightning-like response of the fingers to the ear and the brain is marvelous. I suppose it is not more wonderful than piano playing or the performing upon any delicate musical instrument, but it seems so to me.

Stenography makes business possible today; or, at least, it may be said that without it, business could not be carried on in such volume, nor with such speed and safety. Does it not bore one nowadays to get a letter written in longhand? And isn't the handwriting of most people "awful"? Perhaps the art of writing will be altogether forgotten in future generations. Stenography is of immense importance to the courts and to legislative bodies. Had it not been for short-

hand many great efforts, — such as Sir William Pitt's speech on the Conciliation of the American Colonies, Webster's reply to Hayne, and Phillips Brooks's most powerful sermons, — would have been lost to us. I, myself, know a striking case of one that was lost. In 1900, the State of New Hampshire invited the Governor of Alabama and staff to be its guests at Portsmouth on the occasion of the presentation of a bas-relief to the battleship " Kearsarge."

Besides other kinds of entertainment, a banquet was given at the Hotel Wentworth, and there were many fine speeches. Along about midnight, after the reporters had departed, President Tucker of Dartmouth College arose to speak. For ten minutes he held that audience spellbound, and it seemed a minute after he had finished before anyone came out of the trance sufficiently to applaud. Then the walls shook. The address was grand. It was masterly. It was the finest thing I ever heard. Dr. Tucker had no notes, the reporters had gone, and — it was lost. This was a calamity, nothing less.

There are two distinct branches of stenography, court and legislative work, or reporting, and the taking of dictation, or commercial stenography. The first calls for infinitely higher qualifications and abilities than the second. A good shorthand reporter has to be mentally as quick as lightning,

an all-round man, and especially a well-read man. He must know a little of all the professions, at least, the technical language of them, and he must be ready to take a foreign quotation or a classical reference. The drudgery of preparation for court or legislative work is tremendous, and very few hold out to reach the goal. It takes nerve, patience, persistence, and practice, practice, practice. Most fellows who start out to become reporters end as stenographers for mercantile houses. Reporting seems easy at first, but an attempt to follow a cross examination in court soon undeceives the aspirant and he gives up in despair. A good reporter tells me that it is not particularly hard to become able to take 150 words a minute, but when one tries to add another 50 words and take 200 a minute it is just ten times as hard. I suppose it is like getting another mile out of an ocean greyhound. The extra mile costs about four times as much in coal and wear and tear as the first mile. It was no uncommon thing for Phillips Brooks to talk all through a thirty minute sermon at the rate of 213 words a minute. He was the terror of all reporters, but there were those who could and did take him. Almost all reporters are men. Nearly all mercantile stenographers are women. There is probably a good reason for this. Court and legislative work is too trying, too nerve racking, for women. Then, too,

it is frequently night work, and often in court cases the testimony is hardly fit for women's ears. On the other hand, women are well fitted to take ordinary commercial dictation, and are generally neat, prompt, and efficient. Another great advantage in the employment of women in mercantile houses is that they leave the business at the door of the office, and do not talk about it outside. They get enough of it during the day and are glad to talk gowns and bonnets at home.

As this book is for boys, I will discuss in this chapter reporting or men's work. I think many a fellow could get a fine start and help himself well on the road to success by studying stenography, even if he never became a reporter. No matter what one does, a knowledge of shorthand will always be of service. As a matter of fact, the brightest examples of quick successes today are men who started out as stenographers or secretaries. I refer to George B. Cortelyou, secretary of the treasury, William Loeb, secretary to President Roosevelt, and Frank Vanderlip, vice president of the National City Bank of New York.

The fact is a man's secretary becomes very near and dear to him. He finds opportunities to serve his employer in countless ways. He sees into his very brain and heart; his employer realizes this and appreciates the aid the secretary is to him. It is not surprising then if an employer, who is fre-

quently a man of power and influence, uses that power and influence to further the fortunes of the man who has become almost a part of himself. There is a great demand for broad-gauge men who are incidentally stenographers, and the market is very bare. Let a man try to hire a good male secretary and see what he can find. I tried it the other day, and I know they are rare. Yet hardly any field is as attractive as that of a secretary, or offers such speedy advancement.

I know a stenographer who was for six years secretary to a United States senator. He now holds a prominent court position, and he told me that his six years as secretary was the making of him. It taught him to know men, and big men. It gave him splendid opportunities for practice, and put him in touch with a wide variety of subjects and things with which he could have come in contact in no other way.

I have heard of another reporter who was recently hired to go to sea on a battleship to report a court martial on board. All the time he was at sea, — nearly two weeks, — the fleet of which his vessel was a part was going through manœuvers and having target practice. In no other way could a civilian have had an opportunity to see such interesting things. Will he ever forget it? Will he not sometime find that information useful?

These are only two illustrations of the oppor-

tunities a man has who knows stenography. There are thousands of others. Stenography may be a profession, or it may be used as a stepping-stone to something else. To be successful as a reporter, one must have common sense, good judgment, and a first-class education. The recording of testimony requires the closest mental application, and the reporter is sometimes for hours and days under a fearful nervous strain.

The rewards of the successful reporter are good. Many court stenographers get $2,500, and there is frequently extra work and additional pay. Legislative reporters often make even more. Men who run offices and have a corps of stenographers sometimes make from $10,000 to $15,000 per year. It is not necessary, however, to become a court or legislative reporter to make good use of stenography. A fairly good knowledge of the art coupled with good general abilities, a frank disposition, and a devotion to one's employer will bring quicker and larger returns as secretary to some big politician, a railroad or bank president, or a captain of industry. There are great chances along this line.

XXV

ART AS A PROFESSION

THE study of art, as it is undertaken nowadays by the young people, is supposed to be what the college boys call "a soft course," and the pursuit of art is supposed to be an easy and quick road to fame and fortune. Some witty Frenchman says concerning love, if there were not so much written about it, there would be considerably less of it in the world,— which applies equally well to art. Except to the rare few, — men and women of superior gifts and intelligence, — art as an occupation insures to its devotees the smallest financial return of any of the professions.

Forty years ago in America the ordinary accomplishment of drawing and painting was never taken seriously by anybody; but today the greater number of art schools, which serve to provide a livelihood for teachers who would starve but for this resource, stimulate a vast number to enter the profession, girls especially, the major part of whom are totally unfit for the work before them. Many

fall by the way; many marry, fortunately; but they who remain, struggle on somehow or other, and generally make a failure of their lives.

The brighter side of the picture, however, is that all who have seriously studied in any of the better class of art schools, carry out into the world some useful knowledge of the painter's technique and a keener appreciation of that which is fine in nature and in art. As a factor in education the importance of the study of art cannot be over estimated. The hope for art in America rests upon this general culture in the fine arts and in the minor arts as well. The potentialities are great in a wild stock.

Not many years ago, parents thought they must give their son and daughter a smattering of art in some of its branches for drawing-room purposes, but that idea seems in a great measure to have abated, and only those with marked talent now enter the field.

In order to become a successful painter, the very first instructions are most important, for a style is sometimes formed, which once firmly fixed is quite as difficult to change as a Chinese lady's foot after the squeezing process.

Usually high schools have instructors with sufficient ability to teach the rules of perspective and elementary design, but parents should be exceedingly careful about sending young people to

the "town" painter for instruction unless he is well qualified, by study abroad, to teach, since it is quite as easy to acquire bad as good technique.

The student should avoid the use of pigment, oil, or water color, until sufficient advancement has been made in some one of our art schools in the larger cities. If real talent has been shown while in the high school, I should advise the parents to send their child not earlier than the age of sixteen, nor later than the age of eighteen, to Boston, New York, or Philadelphia. I mention Boston first as I am informed that the instructors there, in the Museum of Fine Arts School, are superior, but the works of art in New York are of inestimable value to one studying, so it is a difficult matter to make a choice. I once heard a celebrated painter say that, when as a young man he felt he was not making proper advancement, he invariably put down his brushes and sat for hours, day after day, looking at paintings by the great masters until confidence and inspiration were restored. In New York there are more of such paintings than in any other city in our land, and they render the same assistance to artists, that an extensive library does to a literary man.

The length of time an art student should remain at an institute like the one mentioned is governed in a great measure by progress made, but I should think from three to five years would be a safe

margin, and during this time the student will have matured sufficiently to appreciate, and get the best results from, the absolutely necessary trip to Europe.

In selecting schools and masters there, one will not find difficulty, for everywhere a lover of, and worker in art, has a hearty and, in every respect, an unselfish welcome. However, the impression is pretty general that the French hold out the most inducements, and that one may secure better results with them than in any other quarter, and my opinion coincides with the seeming majority. Since there are many roads among which to choose, I advise taking one to Paris.

Art students who have recently been to Paris say that one can live and attend the schools there for $800 per year, though $1,000 is better. These rates are about the same as the cost in Boston or New York.

XXVI

FARMING

FARMING requires a combination of qualities. It requires a good physique, diligence, prudence and good judgment. The farmer must be an intelligent student of nature, interested in plants and trees and their culture and growth. He should be fond of domestic animals and take delight in their care and training. He should be enough of a scientist to understand the principles relating to the fertility of soils, the nutritive value of foods, etc. He should be enough of a business man to deal in his products to good advantage. Above all, he should be what in old New England parlance was termed " a good planner."

The best preparation for the business is to grow up on a farm under the care of a competent farmer. There is no other training that quite takes the place of this. There are agricultural colleges, ostensibly undertaking to teach agriculture, but thus far with only qualified success. The drift of such institutions is to become technical schools; and their instruction in agriculture has to do with

the experimental and scientific aspects of the work, rather than the practical. The farm-bred boy, however, who has already a working knowledge of agriculture, can often take a course of such study with profit.

The farm itself has much to do with the owner's success; and good judgment in its selection is necessary. In the older settled parts of the country, most of the farms were taken up before the introduction of railroads, farm machinery, or the opening up of the fertile prairies of the West. Many of these farms, not being adapted to present conditions, are not profitable to cultivate. Some have been abandoned to forest growth, which is doubtless the best use for them. A farm, to be desirable, must be reasonably fertile, adapted to the use of farm machinery, and located near markets or transportation facilities. There is sufficient land having all these advantages to supply what agricultural produce is needed; and the farm that lacks any of the advantages named is handicapped, although special lines of farming may be and often are taken up successfully on the less desirable lands. Poultry raising, for instance, may be a success on land of low fertility, and fruit growing on land of uneven surface. But the fact remains that the better grades of land, adapted to a varied agriculture, always furnish more uniform and profitable employment.

As to what extent one may prudently run in debt to purchase a farm depends upon the purchaser and other circumstances. Farm improvements already made can usually be bought for much less than their original cost; and a competent farmer may safely assume a moderate debt in the purchase of a desirable farm. But to undertake the payment of a large debt from the farm profits is not advisable, for the reason that the net income of farm property, after deducting the value of the owner's personal service, averages less than the current rate of interest for which money can be borrowed. As for the men without farm training who sometimes attempt farming for a living, debt for them uniformly spells disappointment and loss. Their farming is rarely a success. This is not because any one farm operation requires exceptional skill, but there is a large variety of farm operations all requiring some skill and special experience. It is even more certain that such novices will fail in their general management and through their inability to make the farm furnish continuous and profitable employment, as it should. Such men, if they desire to engage in farm work, will find the role of employee easier and more profitable.

While farming does not promise the largest rewards in the way of wealth or fame, it offers compensations that may be as attractive and

satisfying. A competent farmer with a good farm is assured of a comfortable living, and can win a moderate fortune. He has the privilege of constant association with his family. He enjoys the greatest degree of personal and business independence. His products are articles of universal use. If one market will not take them, another will. He has no occasion to fawn upon clients or cringe to magnates. Commercial panics rarely affect him. His goods are still necessary; and while their value may be less, the cost of production is often more than enough lower at such times to make up the difference. In fact, his margin of profit is often greatest in years of depression.

While farm work is often laborious, there is a variety about it that contrasts pleasantly with the monotony of a life spent at a desk or bench. To the lover of home, farm work is delightful in that it is a constant process of home development. Each tree and vine acquires a personal value to him far greater than its worth in money. All the various domestic animals are his pets and friends. A well kept farm is a bit of landscape gardening that helps to make home beautiful, and is a tribute to the character of its owner.

For the boys and girls, farm life is ideal. It is no accident that most history makers are farm bred. Country life is the natural life. It is the life that fosters health, strength and individuality.

In recent years men with inherited or accumulated fortunes are turning more and more to the country and the farm as the place to build their ideal home. The farming of such men rarely returns a financial profit; nor is it expected to do so; but a more satisfactory profit is found in the healthfulness of the work and in the delight a rightly constituted man takes in the development of a beautiful home with beautiful surroundings.

Mr. James J. Hill says: —

"Within twenty years we must house and employ 50,000,000 of additional population; and by the middle of this century there will be approximately two and a half times as many people in the United States as there are today. No nation in history was ever confronted with a sterner question than this certain prospect sets before us. Our arable public lands have almost disappeared. Our one resource is the productivity of the soil.

"The single intelligent advance on practical lines made by public authority within the last quarter of a century is the reclamation law. Initiated and inspired by a few western railway companies, it provides for a real addition to the source of food supply and the opportunity for employment. But it is only a light breeze blowing in the face of a cyclone. The time has come for setting our household in order.

"Agriculture, in the most intelligent meaning

of the term, is something almost unknown in the United States. There are three essentials to any agriculture worthy of the name. The first is rotation of crops. The second is the more liberal use of fertilizing material. The third factor in improvement, better tillage, is most interesting of all. A population of 45,000,000 people in Japan is supported on 19,000 cultivated square miles, aided by sea food products. This is because cultivation in Japan is truly intensive; that is, it is no longer even highly developed farming, but market gardening.

"It can be shown that an average of two persons or more may be supported on every acre of tillable land, by the highest form of intensive farming. The 414,498,487 acres of improved farm land in the United States would support in comfort 317,350,405 people, enabling them at the same time to raise considerable food for export and to engage in necessary manufacturing employments. If we are to walk safely in the way of wisdom there is much to be done. It is time to begin. There must be a national revolt against the worship of manufacture and trade as the only forms of progressive activity, and a clear recognition on the part of the whole people, from the highest down to the lowest, that the tillage of the soil is the natural and most desirable occupation for man."

XXVII

THE ARCHITECT

THE easiest, surest, and best way to become an architect is to obtain the most liberal professional training possible. This should consist of a college course, then a course in architecture — at such a school as Massachusetts Institute of Technology, Boston, Columbia College, New York, or University of Pennsylvania, Philadelphia — followed by a course at the Ecole des Beaux Arts, Paris, and finally a trip to see the most noted buildings in Europe.

It is assumed that the student will keep up judicious architectural reading during his entire course of study, so that he will be prepared to derive the greatest benefit from his travels. What is here outlined is no exaggeration. Read Vitruvius, who wrote about the beginning of the Christian era, and see what he, at that time, thought an architect should know. He should be able to understand and speak French and German, also Italian, to some extent. His course

at the École des Beaux Arts will make him familiar with French.

We must admit that it is only the very fortunate and exceptional fellow who has, or can obtain, the means to follow the foregoing course and the average student must get on with far less help from others. He, perhaps, calls to mind successful practitioners who were what is called self-educated, and determines to do as well as they have done. He takes a place in some architect's office, possibly without pay, and commences to draw. He attends an evening school, of which there are usually several in our cities. He soon becomes so useful that his employer pays him a salary, small enough perhaps at first, but it is, at least, an encouragement.

Self-education in every branch is hard work, requiring much determination and self-sacrifice and it is only those who possess these qualifications that succeed.

An earnest student usually draws well before he knows what to draw, before he has sufficient knowledge of style and proportion to keep his drawings simple, dignified, and pleasing. He should never rely upon ornament. A good drawing is pleasing in its general form and proportions alone, without detailed ornament and without a moulding. Drawings should first be made and studied in outline only, and when quite satisfactory

the student may, if he desires, ornament or accent the construction, but never construct the ornamentation.

In the offices of most architects there is a more or less extensive library, and the student ought to avail himself of every opportunity to study these books and to carefully look over the plates and take notes. He should then compile a scrap book, if he has not previously done so. For this purpose, a well-bound book of good size may be selected, the pages numbered, and a classified index prepared. This index should be undertaken only after careful study, and should be a separate volume, for later in life scrap books will become very numerous. The first volumes may be for exteriors, general façades, masonry, brick, steel skeleton frames; one volume may be for office buildings, one for banks, one for court houses, libraries, hotels, etc., and these should be subdivided, leaving numerous pages under each class for future additions. The student should always carry in his pocket a pad of good sketching paper, some pencils and a fountain pen. After a little practice he will prefer to sketch with the pen; when he reaches his office he should complete his sketch, and indicate the date, locality, and any other points of interest. He should never miss an opportunity to sketch anything and everything which he sees that he thinks may be of future use

or interest. He may cut from magazines, papers, etc., all prints he considers of value, and, having his own camera, may collect photographs whenever he has an opportunity. All these collections should be placed in the classified scrap books. It is easy to see that, in a few years, this student will possess a valuable working library that really has cost him little more than his time and trouble.

Whenever the student is studying books of architectural plates he should make small tracings of bits that he may like to refer to in the future, and should note the work wherein he found them. These tracings should be pasted in their proper places in the scrap books. There will be much in these books that he will use in his daily work, and the facility it will add to his work of designing will make him what is known as a rapid workman, which is of great value if he is practicing for himself, and will make him highly appreciated and paid if at work for others.

By this time the student will have become conversant with the different styles of architecture and his designs will be pure, quiet, dignified and generally pleasing. He will also be well informed on all matters pertaining to architecture as a fine art, and should, therefore, study the engineering of architecture.

I recommend that he carefully read " Kidder's Architects' and Builders' Pocket Book," a mis-

nomer, by the way, for its dimensions have far outgrown the pocket. It should always be kept at hand and be studied until the student can refer to every subject and quickly solve his problem, and be sure that he has understood the book correctly. He should then study elementary and practical electricity in order to understand what is best for an electric plant in the buildings which he is likely to have in charge, the wiring for lighting, etc. He should also give attention to the different apparatus and appliances such as heating, plumbing, sewerage, elevators, etc. — it is not necessary to enumerate them all, but it is essential that the architect be able to write clear and proper specifications therefor, accompanied by a diagram of the layouts, etc.

One will say the writer has outlined the work of a lifetime; certainly he has, and very properly so for a professional man should keep up his studies as long as he continues in practice, or he will find himself dropping behind and the younger men taking his place.

XXVIII

CIVIL ENGINEERING

A CIVIL engineer of my acquaintance, sixty years of age, remembers meeting in early manhood Laomi Baldwin, the builder of the Lowell canal, who was active in his profession when Lowell, Manchester, and Lawrence were founded, and who may be said to have seen the birth of the profession in this country. Of course there were engineers in olden times, but their work was confined chiefly to architecture, bridge building, and the construction of wooden ships, and it has been the development of the past hundred years that has created the new profession of civil engineering.

Already the demands of the profession are such that it calls to its service men of the brightest intellects and clearest minds. No one now attempts to master the details of its many branches; and the student does well to follow some specialty of the profession and to devote his time and attention to the mastery of that specialty.

Universities and technical schools confer the

degree of C. E.; but to be admitted to membership in certain societies of civil engineers, many years' active practice of the profession in charge of constructive work is required; such men as Laomi Baldwin and Andrew Carnegie being eligible, but the man with the level and transit not necessarily so.

The field of modern civil engineering covers about all that makes this age differ from preceding ages. For instance, the work of the surveyor includes the running of farm lines and the measuring of city house lots, the mapping of the country for the issue of charts, and the measuring of an arc of the earth's meridian and astronomical work to determine its accuracy. Municipal engineering makes possible our modern beautiful and attractive cities with their systems of sewers and water works, graded and paved streets, parks and reservoirs. The electrical engineer lights the city, locates the telephones, and builds and equips the traction roads that connect the suburbs with the business center. The gas engineer builds the gas works and lights the homes. The railroad engineer connects the towns and cities, and maintains the highway of travel.

Upon civil engineers devolve the planning and construction of bridges, tunnels, canals, dry docks, office buildings, railroad terminals, steel ships, machinery, mines, dams, and other

works that go to make up our civilization of today.

The field is broad and the demand for young men of training and ability to enter the profession is great. There must always be a demand for constructive and executive ability. A man's mental make-up is of great importance, so also are education and opportunity.

The chance to do great things comes to a man of natural ability, but, if he has not the training, he must let it pass.

Starting with a common school education, a young man aiming high in this profession would do well, before taking a technical course in civil engineering, to receive the mental training afforded by one of our many colleges, in the same manner in which one prepares for the law, medicine, or the ministry. There is no question about this being the proper thing to do, and the best thing to do to save time in the long run. If a college course is out of the question, the next best thing is a technical course in some school or university. It is possible to learn any profession in the field, so to speak, and it has been done by men who honor their professions, but it is far harder work thus to acquire the necessary education than in special schools. To be successful implies hard, concentrated study by one's self and the burning of midnight oil. Great natural

ability may accomplish much by the aid of books alone, but proper school training will aid the best abilities, and save time, — to do which is the essential thing in life.

The financial rewards attending the profession are like those in other professions; but, in addition, the profession carries the reward and satisfaction of doing things — of accomplishing something for the benefit of self and, at the same time, of humanity.

A civil engineer ought to be, — and if he has any standing in the profession he is bound to be, an honest and honorable man in his every act, for the reason that the profession deals with demonstrable science, and mistakes may be fatal and are never excused.

The profession tends to a busy, active, outdoor life. It provides mental work as well as physical, and develops mathematical ability, quick reasoning powers, good judgment, and health of mind and body.

A young man before adopting the profession as a life work should decide for himself that he has a natural aptitude for it, and then devote all his abilities to mastering his specialty and as much more as he can. The book of knowledge on the subject is a great volume with a new page added to an old chapter, and an entirely new chapter added every year.

XXIX

MECHANICAL ENGINEERING

THE older schemes of higher education were based upon the erroneous assumption that a course of mental training suitable for certain young men, was equally well adapted for all. This assumption failed to recognize the facts that each person possesses an individuality of his own, that his education should prepare him for his life work, and that the ways in which different men can be of the greatest service to the world differ, and depend upon their individual characteristics. A parent, therefore, before deciding upon the kind of education to be given to his son, should first ascertain his natural aptitude, bearing in mind that natural aptitude is not merely a passing fancy or a superficial interest.

Even if a young man appears to be enthusiastic about a certain subject, when considering it in a superficial manner, it does not follow that he has a natural aptitude for that subject, unless his interest continues unabated when he is called upon to perform such serious and preparatory work as

may be needed for his development along those lines, even if he cannot see its immediate application, and even if its performance is disagreeable to him. Thus, he has not a natural aptitude for engineering of any kind unless he takes an interest in, and does good work in, mathematics and physics. Although the task, therefore, of ascertaining the natural aptitude of a young man is not always an easy one, it is necessary that this problem should be solved before a correct solution can be arrived at regarding the kind of higher education which he should receive.

The attempt will now be made to furnish to the parent some items of information which may be of use to him if he has an idea that his son has a natural aptitude for the profession of mechanical engineering, and is endeavoring to test the correctness of his idea; also, if he finds it warranted, to aid him in determining upon the course to pursue.

Some of the questions which will probably arise in the mind of the parent are the following, viz: What is the nature of the work which the young man would be called upon to perform if he selects the profession of mechanical engineering? What are the opportunities for employment immediately after graduation from the school, and what will be the nature of the work at that time? What will it cost to give the young man the education

needed? If there is a school near home which is not so well equipped and conducted as one farther away, which should the young man attend?

These questions will be considered in their order.

As to the nature of the work of a mechanical engineer, the fact should first be recognized that a certain young man may be well adapted to become a good mechanic, and not be suitable to become a good mechanical engineer.

In all industrial work, a large, and more or less undefined portion falls to the lot of the engineer. In many, and I might almost say in all, industrial establishments, there are certain processes necessary to manufacture the desired products or to accomplish the desired ends, such as the metallurgical processes necessary in the manufacture of steel, whether the product be rails, shapes, or other forms; the processes necessary in the manufacture of sugar, the chemical and other processes needed in the manufacture of soaps, glycerines, etc. While there may be more or less difference of opinion as to what portion of these processes should be classed as engineering, there can be no question as to the fact that, in every case, a large amount of engineering work has to be performed to render it possible to carry out the processes, and that this is work of the same nature as is required when the product of the factory is

machinery, or the desired object is the operation of the motive power department of a railroad.

As examples of the kinds of work which fall to the lot of the mechanical engineer, therefore, may be mentioned the following: The designing, building, installing, and running of machinery suitable for performing the special processes required, having in view durability, efficiency, and adaptability to the purpose required, and also the cost of the plant and of operation, including labor and administration; also the arrangement and location that will conduce to economy in cost of fuel, water, etc., in receiving the raw material at the works, in transporting that which has completed one process to the place where it is to undergo the next, and in getting the finished product to market. Then come the location, construction, and arrangement of the entire power plant, including boilers, engines, steam or water turbines, dynamos, etc., and the most advantageous method of transmitting the power from its various sources to the different points in the works where it is to be used, whether by shafting, gearing, belting, rope transmission, or electric transmission, etc. Then the mechanical engineer must design and construct the necessary buildings adapted for the work, including foundations, drainage, heating, and ventilation, water supply, lighting (both by daylight and by artificial light), fire protection,

as well as a large number of other matters of a similar character, all of which are generally recognized as engineering subjects.

The mechanical engineer, though not necessarily a good mechanic himself, should have a thorough knowledge of the details of the processes used in the manufacture of the products of the foundry, the forge shop, the machine shop, etc., so that he may not make designs that are either impossible of construction, or whose manufacture would be unduly expensive. He should also be able to direct the work of the mechanic, knowing how it is to be done and how to secure good work.

When we consider that the work of the mechanical engineer is indispensable to the conduct of all industrial pursuits, the fact is not surprising that the demand for graduates in mechanical engineering far exceeds the supply, notwithstanding the very large number of young men graduating every year from the numerous technical schools in the country.

The nature of the work which the graduate will be called upon to perform when he first enters practical life will be necessarily of a subordinate character, as he is not fitted to be entrusted with much responsibility until he has acquired experience in practice, which no school can supply. His first experience may be in the draughting room or in the shop, but often he becomes an assistant

to the one who is in charge of some department, with more or less miscellaneous duties of a subordinate character. These duties may be connected with the work in the shop, in the constructing, erecting, designing, inspecting, estimating, or in some other department, and sometimes in the office where the business is transacted.

During the first two or three years, his pay will be small if the establishment is one where good experience can be gained, or where there is opportunity for promotion; probably nearer to $500 than to $1,000 per year. Subsequently, however, as he becomes better fitted to assume responsibility, his advance in earning power and in responsibility, either at the same place or elsewhere, will increase at a rate which is not possible for the young man who is not technically educated.

Moreover, some of the positions to which he may eventually aspire are those of master mechanic, engineer of tests, contracting engineer, mechanical engineer, or of superintendent of a department or of the entire works; and if he has paid attention to the business side also, he may become general manager, treasurer, vice president, or president of the company.

A perusal of the lists of occupations of the graduates of the different schools in mechanical engineering will show that there are large numbers of them occupying the positions named. What the

young man makes of himself after the first two or three years will depend upon his ability and industry.

The tuition charged by various institutions differs greatly. Whereas in some state institutions tuition is free to citizens of the state, in others it varies from about $50 to $250. The board and incidental expenses vary greatly also according to the location and other circumstances. These matters can be best ascertained by reference to the catalogues of the institutions under consideration. In several, scholarships are provided to aid a certain number of students of tried ability and industry in case they should be unable through poverty to complete the course. As a rule no such aid is furnished until the student has attended the school at least one year and proved that his work is of high quality.

When choosing the institution to attend, the general proposition may be laid down, that unless there are special reasons to the contrary it is wisest to choose the best, irrespective of cost, and this should be the course adopted if one can afford it, whether the institution is near the student's home or not. Indeed, after the young man enters practical life, he will probably have to live away from home and come in contact with people in other parts of the country. There may be cases, however, where the nature of a young

man is such that he needs the influences of home in order that he may retain his habits of study and industry. Such a condition generally indicates lack of self control and proper ambition; and in such cases it is doubtful whether he ought to undertake to become a mechanical engineer, as he will need to have these qualities well developed if he is to practice that profession. In some such cases it may be best to set him to work at something else until he has acquired these characteristics, and then send him to a technical school.

The following is a list of some of the best known and best equipped schools of mechanical engineering:

Massachusetts Institute of Technology, Boston.
Cornell University, Ithaca, N. Y.
Stevens Institute of Technology, Hoboken, N. J.
Columbia University, New York.
Purdue University, Lafayette, Ind.
University of Wisconsin, Madison, Wis.
Leland Stanford, Jr. University, Palo Alto, Cal.
University of Michigan, Ann Arbor, Mich.

XXX

MINING ENGINEERING

FIRST of all let us consider the various openings for a young man in the profession of mining engineering. He may have to deal strictly with mines, their investigation and working; he may have to do with the ore dressing side which covers the separation of the valuable minerals from the waste; or he may go into metallurgical lines where he extracts the metal or useful material in such form that it is ready for the market.

In small mines a young man usually starts in as an assayer or surveyor and works up to the position of superintendent or general manager. Such mines are often in remote places, in many cases their life is short and, although progress is rapid, the frequency of change of location may become a serious drawback.

In large mines the whole operation is generally on a more permanent basis so that progress, although it is along the same path as in small mines, is apt to be slower and surer. Such mines

often have the advantage of attracting larger communities.

Coal mining is in a class by itself. These mines are generally large and work here partakes of the nature of manufacturing industries where a young man can start at the bottom and work up.

Metallurgical works are, as a rule, large and permanent and located near large centers. A young engineer starts in a subordinate position, often as chemist. Iron and steel metallurgy requires enormous plants and involves considerable mechanical as well as metallurgical work. It approaches the nearest of anything in the mining line to a permanent manufacturing industry.

The foregoing are the main lines that are open. Others are government work, especially on the geological survey, mining expert work which should be attempted only after years of practical experience, the manufacturing of mining machinery, and so the list can go on indefinitely. A study of a list of graduates of a mining engineering school will show that the men receive such a broad training that their pursuits become many and varied.

In preparing to enter this field, — and this applies to all engineering professions, — honesty, courage, perseverance, firmness, self-control, a knowledge of, and an ability to handle men, are

absolutely necessary. Honesty is placed first because the peculiar nature of mining has made it such a field for dishonest schemes in the past. The cupidity and gullibility of man, coupled with the uncertainty of the extent and richness of the earth's treasures, are the chief causes of this. Happily, conditions are improving and it is to be hoped that the day when all mining enterprises will be legitimate, is not far distant.

The technical training for this profession is broad rather than highly specialized. The mining engineer must not only be a master of his own subject, but he must combine with it a knowledge of other engineering professions. It may be well to consider the individual subjects and their relation to the work.

Mathematics, physics, and chemistry are the fundamental studies. Mathematics and physics are necessary in all engineering work. The former is required for all sorts of calculations and also gives a training which leads to exactness. The latter involves a knowledge of all natural laws without which an engineer would be hopelessly at sea. Chemistry, including fire chemistry or assaying, is necessary for the determination of the values in an ore or in the products of a metallurgical operation. In fact it may be said that metallurgy is dependent upon chemistry.

Mineralogy, or the knowledge of minerals, is

essential in prospecting for valuable deposits and also in solving the problem of the proper treatment of an ore to recover the values from it.

Geology, or the knowledge of the earth's structure, is likewise of importance in prospecting. It comes into use also in actual mining work in deciding how to remove the ore to the best advantage.

Civil, mechanical, electrical, and hydraulic engineering are useful because the mining engineer in the majority of cases is located in a remote place where he cannot call in a specialist in these subjects without great expense and loss of time. He must understand mechanical engineering in order to superintend his construction work; civil engineering for his surface surveying and also for the surveying and mapping of underground workings; electrical engineering for the installation of modern power transmission and for the operation of electro-metallurgical processes; and hydraulic engineering for the best utilization of natural water powers.

The consideration of academic studies — language, history, and English — has been left until the last. Undoubtedly some very successful engineers have been able to get along without them, but their lack is a serious handicap to a man. One can readily understand that a manager writing reports or dealing with his superiors will

be greatly aided by a good command of the English language. Similarly a commercial training would be very valuable in the keeping of accounts, buying and selling, etc. Experience seems to indicate that four years at a college giving good scientific training, supplemented by two years at a technical school, furnishes the best preparation for a mining engineer. The former not only imparts a general education and broadness of view, but also in the majority of cases provides contact with his fellows, which is apt to be missed in the highly specialized work of the latter.

One may ask how it is possible to turn out a mining engineer who shall know all about civil, electrical, mechanical, and hydraulic engineering in the same time that it takes to train a civil, electrical, or mechanical engineer. The answer is that the student is given the broad principles and not the specialized work of all these lines. In other words, the school starts him out along these different paths, teaches him how to study, and inculcates the spirit to advance himself after he has left the school.

The school education is only part of the training of a mining engineer. It must be supplemented by a course in practical work, an apprenticeship, so to speak, where he will gain a knowledge of details and of men and perhaps get some of the theoretical nonsense knocked out of him. This

practical work may either precede or follow the theoretical study, but the balance of opinion seems to be towards the latter sequence. Sometimes the two may be sandwiched together. The question of how long or how varied this practical experience shall be will depend upon the individual case, and it is impossible to make any definite statement here.

The question as to which line offers the best chances of success is not capable of an answer. It is the opinion of the writer that opportunities are good in all lines and it is not the training that a man receives, nor the line of work which he chooses which guarantees success but rather the man himself. The best man comes to the front everywhere.

The salary which a technical graduate may expect to receive, is by no means fixed and, viewed in the light of what has been said previously regarding the necessity of practical experience, it will be seen that salary should not cut too much figure in choosing the line that one expects to follow. In a general way the salary varies in inverse ratio to the probable life of the position. At the present time metallurgical works offer beginners from $40 to $60 per month, while mining jobs will pay from $50 to $75 per month at the start. A good man, however, will soon get a raise from these figures and will continue up the ladder

until he finds himself at the top among the mining and metallurgical experts, and the presidents, general managers, and superintendents, whose yearly salaries run into the tens of thousands and even up toward the hundred thousand.

XXXI

ELECTRICITY

THE electrical profession or business is one which should appeal to the average American, for it is largely a business carried on by young men. The expression "in its infancy" is used often and may give the impression that its prizes are more easily obtained than in the older and more settled professions. While compared with other professions it is still in its youth, a study of the large number of graduates turned out each year by the many technical schools and colleges will convince anyone interested that this business is almost as crowded as the older lines, and that success is secured only by the display of the same general abilities and character that count in other professions or business. Electricity is particularly interesting on account of the rapidly changing periods of development and one need never complain of being forced to a dull routine of work.

Like any other profession the average man is greatly helped by a technical education, and it is

as essential as in the more established and older lines. A technical course in electricity should be treated if possible just as the law or medical schools are viewed, — that is as a post graduate course to be taken after the student has had four years in a general college course. In order to bring a proper appreciation to his professional studies the average young man needs the experience and training which he gets in his regular college work, and while taking his technical course let him get all the theory he can and leave the practice to be acquired in the really practical fields. There are so many excellent technical schools, both separate and as part of the larger universities, that it is hardly necessary to suggest a list, and in almost any section of the country can be found schools which are excellent preparation for the real work of the profession.

After graduation there are many lines that open possibilities, but the best general experience can probably be gained by spending one or more years in the testing rooms of one of the great manufacturing companies. These concerns now employ several hundred students, as they are called, who spend a certain time in the shops and also in testing each of the many lines of apparatus which they manufacture. In this way they become familiar with the practical operation of electrical machinery in a broader way than can be

done by starting in any one particular branch of the profession. Lectures and talks are given the students by the prominent officials and engineers in the concern for which they are working, and a considerable sum is spent each year for their entertainment and instruction. The pay usually starts at about $1.50 per day and is gradually increased with length of service and, of course, the ability shown. Practically all the positions in these large manufacturing companies are being filled by those who have passed through their student courses, and this applies not only to the purely engineering places but to those which are commercial and which shade off between the two.

The places which are usually called purely engineering are the designers' offices in which are prepared the designs from which the apparatus is built. This branch requires ability of a peculiar sort and seems to be born in a man, though rarely found in the candidate for designing honors. The commercial positions are those connected with the sale of the companies' output, and the competition in this line is so keen that few of the older type without technical education are left in any position of importance today. The questions asked by prospective customers are generally of a character which can only be answered by the agent or commercial man who has had a technical training. Between these two extremes are many

places which are partly engineering and partly commercial, and are more or less in the nature of a link between the two. The larger manufacturing companies while not offering financial inducements which are found in other lines give a permanency of position which is greater than in any other branch of the profession. A candidate for one of these student courses, except in exceptional cases, must be a graduate of a technical school or college.

The trolley lighting and power companies in almost every town of any size in the country offer innumerable opportunities to young men just starting, and here the chance to start, at least if a technical education cannot be obtained, is excellent. The operating manager of any public utility, or semi-public utility, company needs assistance in many lines, and a young man starting in one of these concerns if he possesses any ability in this business should be able to find the opportunity which his abilities justify. For instance, in the arrangement of schedules on trolley car service an expert in this line will be able to save his company thousands of dollars a year by giving practically the same service with fewer cars than would the man who had not studied this problem. In the generating stations, repair shops and the operating department will be found many opportunities not only for gaining

a practical knowledge of how electrical machinery can be operated with the least expense and with the greatest profit and safety to the owner, but also chances to improve conditions in such a way that the candidate has a chance to become known to the management. The accounting departments of these large companies are excellent training schools, and every young man who wishes to gain a wide and general knowledge of the business should familiarize himself thoroughly with the method of accounting adopted by the large companies, the reasons for this method, and be able to analyze and comment on statistical reports.

Another branch which opens up particularly inviting prospects to many is that of installing apparatus in the stations and places for which it is intended. Almost all of the prominent electrical engineers in the country have passed through several years of this experience, and it will be found almost invaluable. In many cases where apparatus is installed in foreign countries the man in charge is confronted with problems requiring originality, ingenuity, skill and courage, and many young men in charge of these foreign jobs have an opportunity of seeing other countries in a way which they would never enjoy otherwise.

There are many other lines which, of course, are open to young men, such as telephony, wireless telegraphy, and specialties, such as the application

of electrical motors to some particular form of drive, as mill machinery, etc.

The ease of getting a start in this profession in the present day has been exaggerated, but at least it can be said that in no profession in the country are there better opportunities for advancement nor more interesting and novel problems.

XXXII

LANDSCAPE ARCHITECTURE

LANDSCAPE Architecture is the art of arranging the ground and the objects upon it for convenient use, pleasure and adornment. It is an art which deals not only with trees, shrubs and flowers, but it also treats of the land and constructions placed upon it before the embellishing features of the flora are introduced. To see the best illustrations of the art one must travel abroad, although this country is rapidly producing fine examples.

The scope of the Landscape Architect includes the planning of cities, the subdivision or improvement of land for sale, the development or revision of large and small estates, the designing of parks, boulevards, public squares, playgrounds, the designing of park systems and exposition grounds, the surroundings of factories, hospitals and other public institutions. It includes the advising with owners, architects, engineers, and others concerning the placing of buildings, laying out of drives and walks, grading of material, and the

treatment of old and new plantations. In general the Landscape Architect's services are needed where the appearance of the result is worth consideration whether in the arrangement of the land or the objects upon it. The Landscape Architect stands in the same relation to the client as any other professional man and he is to have the client's interest in mind in watching the contractor and nurserymen to see that they faithfully perform the work specified.

The Landscape Architect must have the same qualities as those required for any other successful profession: namely, honesty, justice, perseverance and he must be above suspicion as he has frequently to act in many instances in the capacity of a judge and neither client nor contractor must have reason to doubt him. Besides the qualities needed to make a good professional man he should be largely endowed with practical common sense.

Landscape Architecture is not an easy profession. It requires a strong physique, persistence and determination, a love for hard work, an optimistic mind, an artistic temperament, a love of nature, a constructive imagination, pleasing address, and a convincing manner in presenting matters of aesthetic value to clients devoid of taste. He must have a love for drawing and ability to illustrate his ideas and convey them

to others. It is not a wholly out-door profession as considerable office work is required in the writing of reports and the preparation of plans and designs.

There are few professions which need the quality of patience so much as Landscape Architecture. Although the architect may arrange the picture it may take years to realize the result of his idea as he has no control over the forces of nature.

If the prospective Landscape Architect has been associated with farm life or with life in the country he should have a love for nature and some idea of the many suggestions made by nature. He should obtain all the elementary and advanced education that it is in his power to procure.

There are two methods of becoming a professional Landscape Architect. One is to take a course in some educational institution and the other is to associate with a practicing firm of Landscape Architects. There is but one strictly professional course given in the United States today on Landscape Architecture. It is given by Harvard University, Cambridge, Mass. Other schools and colleges have tried to make it a course as a side line to other professions, (such as architecture or engineering) with slight success, the mistake being made by the faculty in not

having a proper conception of the art, for although allied in many ways, it is entirely separate and distinct. For a degree of S. B. in Landscape Architecture it is necessary to take a four years course. The requirements for admission are those of any technical school, and can be had by inquiry at the office of the Secretary of the University. The course teaches besides rhetoric, English composition, German, French, etc., the principles of delineation, history and development of the ancient styles of architecture, elementary architecture and landscape drawing, botany, surveying, principles of Landscape Architecture, principles of design of architecture, of sculpture and painting, geology and formations of the earth's surface, horticulture, trees and shrubs, hardy perennials and their use, ornamental forestry, freehand drawing, water supply, sanitary engineering, building stone, masonry and foundations, contracts and specifications. The cost of such a course is $150 per year. The board and lodgings vary according to the tastes and means of the student. By careful economy it is possible to keep expenses down to about $400 per year. There are many ways in which the earnest and energetic student may obtain help from the University either by service rendered or, if proficient and deserving, by scholarships in the second year. The other way to become a Landscape Architect,

(and it was the only way before the establishment of the above mentioned course,) is to enter the office of a practicing Landscape Architect of known ability, and by actually working on the various problems presented in general practice. This should be supplemented by study, reading, observation and travel.

The personal quality of the man will be largely responsible for his success. A course in the University supplemented by work in the office of a Landcape Architect should give the best result In either case of procedure travel abroad and study of the works of the masters in the art will give an added knowledge and proficiency.

The field for Landscape Architects in the United States is ever widening as the people become educated to the needs of designing of grounds as well as of buildings. There are opportunities for first class men of ability and training to establish in all the cities of the United States offices for the professional practice of the art. The need of good designers trained to meet the needs of the varying and rigorous climate of the United States is growing every day, and the demands are more exacting from clients who have traveled abroad and observed what has been done by men in the past.

The probable income will vary with the class of work one does or the clientele that is secured. As to the amount of money to be made it depends on

the man, as the fees are similar to those charged in the law, depending on the work and the value to the client. If the young man desires to get rich it is not the profession to enter but, if he has the artist spirit and is content with a living, there is no more delightful choice he could make, as he comes nearer to nature than in any other branch of art or science.

If, however, after taking the course or the training he finds his genius is more of an administrative or executive character than that of a designer, there are good positions to be had as park superintendents and managers of large estates and land developments, or he may become an instructor in some small college that gives a course in Landscape Architecture as part of a general course of study.

XXXIII

NAVAL ARCHITECTURE

DIFFERENT callings attract young men in very unequal degrees. While the law and medicine are overcrowded (good authorities say over sixty per cent. of the people engaged in these professions fail to make more than a comfortable living), naval architecture is chosen by fewer students than almost any other occupation. It calls for close, constant, and careful study. The one who goes into it must have primarily a fine mathematical mind, for without it he will not be able to compete with those who are more brilliant and who can master figures. He must also be patient, painstaking, original, inventive. He must have a desire to delve into the most difficult and troublesome propositions.

There is a misunderstanding as to what the term naval architecture means. Some — in fact many — of those whose labors are confined to yacht designing are not naval architects though they set themselves up as such. They do not fill the bill, for a naval architect is, properly speaking,

one who can design all kinds of vessels, their engines, and other details of construction, and it matters not whether the craft be a battleship, a fast ocean-going steamship, a freighter, a tramp, or a sailing-vessel.

In this country the names of the well-equipped, all-round naval architects can be counted on one's fingers. Among them are Lewis Nixon, William Gardner, Nathaniel G. Herreshoff and Charles F. Herreshoff. In the navy department, there are a number of men whose specialties are battleships, cruisers, torpedo boats, and monitors. These men are experienced in all that goes to make these particular vessels, and whether it be the plating, the frames, the deck ties, or the strapping, they know the thickness, the height, the strength, and the breaking strain of each. While they are quite proficient as regards these monster craft, they are wanting in the same detailed information of the make-up of a yacht. I make these comparisons that those who intend taking up the work of naval architecture may know just what they are going into.

Twenty-five years ago there was not much of an outlook for the naval architect. Nearly all the sailing craft were " rule-of-thumb " affairs, built from a model by which the lines were laid down on the mold-loft floor with few calculations. Even yachts were crude affairs, and on this side of the

water it was not until the time of the "Puritan" that the "rule-of-thumb" yielded to a scientific way of doing things. Since that time the advance has been marvelous, and naval architecture has become a prominent profession.

In naval architecture opportunity counts for much, for, however brilliant the man may be, if he is not given a chance, his powers and equipment will not carry him beyond the draughtsman's table and other men will appropriate not only his physical work but his brains and his inventions. There are many men who, having all the qualifications of the all-round naval architect, fail to find an opportunity which advances them beyond the draughting board; others find clients almost with the placing of their signs on the office doors and grow steadily in purse and clientele.

In opening up the subject of naval architecture in its broadest sense as a means for future livelihood, it should be discussed fearlessly, and in an advisory sort of way, in order that the young student may see what its possibilities are both in sunshine and in storm. The first and all-important query is where can opportunity be found to study it? What institutions offer to the student the best opportunities?

There are three places that stand, the world over, in the forefront, the University of Glasgow, the British University at Green-

wich, and the Massachusetts Institute of Technology.

The institution at Greenwich is devoted exclusively to all types of warships. There the brightest men from the national naval academies of Great Britain, the United States, and other sea-bordering countries are developed. The United States sent among others Lewis Nixon and William Gardner, both Annapolis men, and it is to their credit that each passed phenomenal examinations, winning respectively 99 plus and 98.80 plus per cents, which figures have not been attained before or since by any student at Greenwich.

These two men, — of extraordinary ability, educated at Annapolis and Greenwich at the government's expense for the sole purpose of becoming constructors in our navy, with a sure and comfortable revenue during their days of service, pensions in their old age, and no worry of battling for the necessaries of life, — resigned from the United States navy and entered the profession of naval architecture with offices in New York. Both have done well, from a financial standpoint, and this, I take it, is what the young student wishes particularly to know about. Nixon has built battleships, cruisers, ocean-going steam vessels of great speed, torpedo boats, and steam yachts, and this means a large business. Gardner has gone into yachts, and with ten per cent

commission on the total cost of the "Atlantic," "Alcaea," and dozens of other large steam yachts and with plenty of orders ahead, he is drawing some of the world's dollars to his credit.

Nathaniel G. Herreshoff, a Technology man, has done well. He has confined his work to torpedo boats, their engines and equipment, and the yacht — steam, power, and sail. "Nat" Herreshoff is brainy, inventive, and progressive. He charges high prices and his clients are among the most wealthy. The one who wants his services must pay for them, the result being that he has made much money since 1893 by building "cup defenders" from his own plans and in his own shop. He now makes sails also, and it is apparent that he lets nothing escape him, when the dollar is in sight. These boats could be built more cheaply in the open market, but Herreshoff will not allow this, and his great reputation enables him to dictate terms. He furnishes the brains, and the owners provide the money. He has built many a torpedo boat, but of late years has confined himself to the yacht which affords him a larger income.

Nixon, Gardner, and Herreshoff are the leaders in this country, and naval architecture has served them well. Among others located here, A. Cary Smith, J. Beavor-Webb, and Clinton H. Crane have succeeded fairly well, but not in proportion

to their respective abilities. Since 1866, Smith has been working on yacht plans; and such splendid vessels as the "Xampa," "Fortuna," "Iroquois," 'Nor'd Wind," "Meteor," "Lasca," "Elmina," and "Ariel" were built by him. During a conversation with him in New York several years ago, he told me that there was more money in the mercantile end of naval architecture than in the yacht. The Sound steamer "City of Lowell" was a product of his brain, as were many ferryboats and Long Island Sound steamers. Mr. Smith is an artist, and this qualification enables him to place handsome vessels on the water. While he has had many orders, I think he has not fared so well as his experience and ability deserve.

Clinton H. Crane has been very fortunate for one so young. His commissions have been good and in some cases lucrative. Today he is having the largest auxiliary yacht yet built laid down at Lawley's, So. Boston. To my mind, from a brainy and practical standpoint, young Charles F. Herreshoff has as good a chance as anyone to get on the top round of the ladder. He is the nephew of the great "Nat" and has the latter's phenomenal mathematical abilities. He was reared in boat shops. After serving an apprenticeship with his uncle, he went to Glasgow and entered the university. Although three years was the required course, young Herreshoff was able to get through in

three months. He solved in eight minutes one of the most difficult propositions and formulæ ever put before the student body of the university although the more than average man would devote at least five hours to it. That he is great in power boats, both hull and engine, is shown by the wonderful speed of his auto power boat, the "Den II," which made thirty-two miles an hour, and this in his first attempt at high speed boats. He is now mechanical consulting engineer of the American Power Company.

Besides the above-named, those engaged in yacht designing in New England are as follows, in Boston, Starling Burgess, A. A. Packard, and Swasey, Raymond & Page, B. B. Crowninshield. W. J. J. Young, who is now in the construction bureau of the navy department and who designed the "Pantooset," may also be included. The others are yacht designers, and of these, Fred Lawley is the most experienced and practical man in all classes of work.

Burgess is clever, and Packard, who is a summa cum laude man of "Tech," worked for years as superintendent for Herreshoff. The firm of Swasey, Raymond & Page struck luck at once. Clever in the theory, they have had years of experience with the Cramps. Power boats seem to be their specialty, though they are fitted for any job, whether battleship or smaller vessel. There

is nothing of financial return from fishing vessels. One set of molds serves for a long time. No calculations of serious nature are required. Just throw in the ballast.

A few days ago I had a chat with E. A. Boardman, one of our most successful designers. He said, — and I agree with him, — "No money in the business except for the few." Boardman is the Harvard man who produced the fastest boat for her length that ever raced in Canadian waters.

In many cases young men of good ability, after educating themselves for the profession of naval architecture, give it up in a few years and go into other business. I am sorry to say there are too many such cases.

Outside Technology, Boston offers two places where the young student may begin without charge or fee. New York has a school in the Highlands near High Bridge, presided over by men educated in the University of Glasgow and brought up in the ship yards of the Clyde. In the Boston schools, one is admitted free if he is a resident. The city of Boston supports one school in the library building in Charlestown, where the student is not required to put up one cent of expense. The John Hawes Fund School of South Boston is another where tuition is free, the only expense being for the drawing paper and pencils. In the New York school there is a small

charge, but it is trifling considering the great opportunities.

Men from the first two schools named above have done well as a whole. They can be found in the great ship building yards and in the Naval Construction Bureau. One of them was for years superintendent at the big yard in Newport News. With few exceptions these men fared no better than first class draughtsmen at from five to eight dollars per day.

With the tendency of the times toward big yards such as Cramps', the Union at San Francisco, the Baltimore, the Richmond, the Bath, and the New London, naval architects find employment but the work is so divided that no man makes the full plans. The naval architect then becomes a sort of clerk, each having his specific orders. The ships are figured out by a team, after which comparisons are made for safety.

On the other side, thanks to orders from Americans, the late George L. Watson made over half a million on yachts. His commissions on new yachts some years ran beyond $50,000. St. Claire Byrne, who designed the ill-fated "Alva" got $25,000 as a commission. J. Beavor-Webb, now of New York, who designed "Genesta" and "Galatea," got a fine commission out of the "Corsairs," I and II, the "Sovereign," and other steam yachts designed by him. Fife has

not made much money as compared with Watson, while Mylne and Payne have yet to receive their first order large enough to bring good financial results. The French and Italian designers get their best revenues from the auto power boats.

With the above facts to enlighten him, the student, who contemplates taking up naval architecture for a living, starts out with his eyes wide open. He has been told how those have succeeded, who have had experience both in the technical and practical side of naval architecture.

The future promises better than the past as regards the warship, the cruiser, the ocean greyhound, the tramp, the torpedo boat, the launch, the sailing vessel, and all types of yachts, and as business increases the demand will be greater.

Many a young American has studied in Glasgow and worked in the big Clyde ship yards, and on his return found ready employment at fair wages. A visit to the draughting rooms of our largest yards will reveal them by the dozen. With the student body growing each year, competition for places, especially for the leading ones, will be keener. As in law and medicine many obtain satisfactory financial returns, so it will be in naval architecture though perhaps in less degree because of the narrower limit of the building field. As to yachting, that is a luxury dependent on the volume of general business and the stock market.

Whims are uncertain and do not develop steady, certain business. It is my opinion that naval architecture offers less substantial returns than are won in some other professions where no such intellectual foundation is required.

XXXIV

THE MERCANTILE TRAVELER

THE drummer, or bag-man as he is called in England, is the product of competition and modern times. He evidences the desire to grow, to spread out, to conquer new worlds in trade. Competition through the agency of drummers or commercial travelers is becoming finer and finer every year, and higher and higher prices are paid for the best men. The foundation of trusts has checked for the moment the increase in the number of drummers, but this is only temporary. The trusts in their present form will not last and new concerns will be started, so that there will be as great a demand as ever for the traveling man.

The life of the drummer is a hard one. He must be constantly on the alert for at least twelve hours a day. He must put up with all kinds of transportation and live at dyspepsia-breeding hotels. Sunday is usually the only day he has at home, and he who covers a wide territory or travels in foreign countries can be with his family only a

few times a year. On the other hand, he sees many things and many people; he acquires a knowledge of geography and human nature. He becomes either a misanthrope or a philosopher, and I think most traveling men become philosophers. He gets his wits brushed up and his memory strengthened, and develops feelers for detecting a trade.

To become a good drummer, one should select the business he feels that he is best fitted for and, in order to have a good working knowledge of it, spend a year or two in the office, store, or factory, before going on the road; one must have sound health, strong nerves, a reservoir of humor, a certain amount of tact; one must be honest and square, and one should be clean of tongue. A great fault of drummers is their propensity to tell vulgar stories. I do not believe it helps them in their business although they think it does. Their societies and organizations ought to make a concerted effort to stop this discreditable practice.

Drummers are frequently called off the road and made partners. They develop such capacity and control so much trade that the firm cannot afford to run the risk of losing them and they are absorbed. A drummer's customers are his capital, and he should try to fasten them to himself by the strongest bonds. A study of the customer and an endeavor to foresee his wants count for success. Just how persistent to be is a delicate

matter, and in nothing will a man show his tact more than in this direction.

Owing to terrific competition a far better class of men have of late years entered this field. This is especially true in the lines of business in which some technical knowledge is required.

To sum it all up, there is a good future in the business if one goes at it right and his stomach does not give out.

Salaries range from $500 and expenses, to $10,000.

XXXV

THE SOCIAL SETTLEMENT IN THE COUNTRY

THE social settlement movement with its wealth of glorious achievement during many years past as a moral force in our great cities, needs no panegyric. We are all familiar with the conditions of the city slums, but comparatively few realize that in some rural communities, society needs saving, and that some of our country towns abound with shocking cases of poverty and ignorance, oppression, and crime.

Social settlement work is only one manifestation of that wider humanitarian movement which embodies itself, not in a sect, but in society itself, and recognizes the fact that society needs persons and not devices in order to be saved.

Strong young men are needed today to go forth into these decadent rural regions submerged in religious apathy or stolid indifference, where the prevailing motto is "Every one for himself," where crimes of violence and the desertion of mother and child are common occurrences, and where every high and lofty aspiration is stifled

through the lack of educational advantages and social privileges which even the poorest in our great cities can obtain for the asking.

The real leaders have yet to be found for the saving of the countryside slum, — men who will go forth to their work with the purpose of antagonizing no sect or individual, recognizing the good in every man, and expressing in deeds the spirit of Christ.

In saving these country towns the settlement movement will do what it has done for the city wilderness, — it will produce more earnest, more upright, truer men; bind families together in a deeper common life; make men better citizens by kindling in them devotion to the state; and prove its real authority by making the man, the family, and the state better prepared for the struggle of life.

The social worker in his mission to the higher life of men must consider the spiritual side of their nature. He will find religious strife and discord, and superstitious fanaticism rampant, and by his own daily life of self-sacrifice and unbounded charity he must bring to the people the influences of a broad and free religious enthusiasm which will show the insignificance of differences when compared with the unity of spirit in which every man is in some sense religious.

Ofttimes the social worker will find himself the acting parson of the countryside, and in Bible

readings and stereopticon services in a lonely farmhouse or the hillside schoolhouse, in prayers at the bedside of the sick and dying, in friendly words of comfort and cheer to the neglected and outcast he will find his opportunities for serving his fellow-men in their greatest need.

Already the work of the visiting nurse and her dispensary has proven indispensable in ministering to the physical needs of the friendless and suffering of many remote rural towns.

In solving the problem of the rural school, the social worker will find a field for the outlet of energy and enthusiasm, and will also find an endless and thankless task. The school year of barely twenty weeks; poor text books and little or no equipment; untrained and uncultured teachers on starvation salaries; no playground, though the schoolhouse is in a deserted wilderness, and no library or gathering place other than the country store which, in its influence, is frequently as bad as a saloon; — these are a few of the conditions which will compel the social worker to seek an election to the local board of education. That office will give him power and opportunity to open a reading room and library, where young and old will be always welcome, and, perhaps, in winter to teach an evening school, and to reach out a friendly hand to the few ambitious lads who have not deserted the farm and gone west, or to the cities.

A men's club with smoke talks, games and sports, lectures and concerts, and social evenings, will minister to the deep-seated craving for companionship which all men feel.

For the lonely women with many idle hours at their disposal there ought to be clubs and mothers' meetings, where the teaching of simple handicrafts will provide employment, and social teas and talks will furnish healthful recreation.

The influences of the Village Improvement Society, in a region where civic pride has never been given birth, seem almost unbounded, and with little effort the social worker can inspire a whole community to clean up and beautify their homes and village surroundings; — an example, the contagion of which soon spreads to all the region round.

For the instruction of, and giving of pleasure to, the young, the social worker can establish, for the girls, classes in cooking and sewing, — however simple, — a band of union and means of recreation. For the country boy, the great need is clubs and classes in sloyd and manual training, and what could be more beneficial for the undeveloped country lad than a military company with light guns and field days and sham battles?

The social worker in his visionary hours sees the federated church in many localities solving the religious problem; the cottage hospital succeeding

the faithful district nurse; and a model farm where the boys can be taught practical and scientific farming.

A constant stream goes forth from the countryside and feeds and prospers the city, and the moral forces in the city and the country town must work hand in hand.

Well-trained young men, with energy and enthusiasm, willing to sacrifice worldly gain and even comfort, are needed to develop the settlement movement in the country towns. Young men of today are called to study society and, working through society, to help save men. The discouragements of working for years, single-handed, far from home and friends, are all offset by the physical blessings of the outdoor life, and by the rewards that will come from the lessons learned among the poor, — riches of reality and simplicity, unselfishness and love.

The beginning has been made and I believe that the young men of today will respond to the call of this work, — not of relieving, but of righting, wrong conditions, — which alone will restore a healthy life and bring people to know and care for the good in each other, and aided by the streams from the sources of higher civilization save the country slum from ever returning to the narrowness and gloom, and perhaps the brutality, of its old existence.

XXXVI

SYNDICATE LETTERS

BY syndicate letters, I mean writing letters for a syndicate of papers scattered over the country. It is frequently done and pays well if one can get the right papers. A number of men have done very well at this work, among whom are Joe Howard, George Alfred Townsend, William Jennings Bryan, and many others whose signatures are familiar to newspaper readers.

It is a pleasant and instructive occupation, but, of course, is not open to every one. Special gifts and abilities are necessary, and generally reputation as a popular writer for the press is a prerequisite. If one believes he has the ability and can afford the time, he can first try his hand on some one paper, furnishing the letters for nothing, perhaps. If he "catches on" and suits the popular fancy he can get a permanent position.

XXXVII

LIBRARIANSHIP AS A PROFESSION

MODERN librarianship may be said to date from the Centennial year, when at Philadelphia the American Library Association was formed. The leading spirits in this new movement were Melvil Dewey, librarian of Amherst College, Justin Winsor, librarian of the Boston Public library, William F. Poole, librarian of the Chicago Public Library, Charles A. Cutter, librarian of the Boston Athenæum, and Samuel S. Green, librarian of the Worcester Public Library.

Since then the expansion of the public library system has imposed new duties upon the librarian, increased his responsibilities, and made it necessary for him in the organization and conduct of his library to follow the methods of the business world. He must see that the income of the library is wisely and economically expended, and that the needs of the institution are so represented to trustees and the city officials as to secure sufficient money to carry on the work.

He must keep in contact with the busy workers and professional men of the community, so that he may be prompt in seizing every opportunity for extending the usefulness of the library.

Trustees have realized that better results are obtained when the librarian is really the active executive head. They expect him to make recommendations and, after they, as a legislative body, have accepted and adopted them, to see that they are carried into execution.

In these days system and organization are indispensable in library management. The labor saving devices which have been invented for the modern man of affairs have not resulted in giving him more leisure, but have been designed to make it possible for him to accomplish more work in a given time. The librarian has studied business methods only that he, like the business man, may save time in one direction to expend it in another. The library which is not well organized will meet the same fate as the commercial house which has an incompetent head.

But with all this modern rush and worry and attention to administrative details we must not lose sight of the fact that the library is an educational institution. We do not believe that the business manager can ever supplant the scholar in the library, the school, or the college. The ideal librarian undoubtedly combines the strong points

of both, but such a combination is rarely found because the qualifications of the one are, in a measure, antagonistic to the other. No one man is capable, either physically or mentally, of meeting all the requirements for the successful administration of the library. To reach the highest degree of perfection the great public library must have not only its executive whose guiding hand will steer the craft through all kinds of business dangers, but also scholarly, studious men and women who know books and how to use them. Both are necessary to the welfare of the large library. The wise administrator is the one who while keeping his eyes upon the needs of the whole system, has the ability to discover the specialists who are needed to round out the work of the library, and to place each in his own particular niche.

As a consequence of the generosity of Andrew Carnegie in giving money for the establishment of public libraries the demand for librarians of all grades has been for years greater than the supply. The field grows larger and larger each year. There is a splendid opportunity for anyone who wishes to enter the profession, and able men and women will always find room at the top. With the library profession as with any calling or business, the first step towards success rests upon the love of the individual for the work itself. Unless one

is perfectly satisfied to do the work for its own sake it is useless to go into it.

The average pay has increased during the last few years, so that the library employee is nearly on a par with the teacher in the public school. Apprentices usually receive no remuneration; assistants, according to the grade they are prepared to enter, are paid from $400 per year, upwards.

There are three ways of obtaining instruction in library work: first, by securing employment in some library; second, by entering the apprentice class of one of the larger libraries, like Brooklyn or Manhattan; third, and best, by entering the New York State Library School at Albany, Pratt Institute Library School, Brooklyn, or any like institution. Information concerning these schools may be obtained direct, or through the American Library Association headquarters, 34 Newbury Street, Boston.

Within the space of this chapter it is not possible to give all of the interesting, attractive and alluring features of library employment, but we are safe in saying that the young man or woman who engages in this work never has cause to regret it.

"The demand," says a writer in the New York Times, September, 1890, "is for well-educated and thoroughly trained men and women, who not

only know how to collect and administer a library, but have an insight into the ways in which the library can be made like the newspaper, the daily university of the people in their widening and higher education."

XXXVIII

POLITICS

POLITICS has always been on a somewhat higher plane in England than in America; that is to say, better educated men have made it the profession of their lives. This was natural as for generations the ruling class has been the aristocracy and hence a political life has been looked upon as highly honorable.

In this country, with rare exceptions, the conduct of our politics has been left to the professional politician, who has generally been a man of meager education and, while often a man of shrewdness, has not always been over scrupulous. To win has been the thing, without too much regard for the means of winning, and once the battle was won, it was a scramble for the spoils. There has not been that feeling of responsibility to the state, that effacement of self for the public good, which one frequently sees in English political life.

But a better day is dawning. A better class of men is entering public life. Preparation for public

service is more thorough. The eyes of the people are opened to the unscrupulousness of some of their representatives, who are being called more strictly to account. A more altruistic spirit pervades public service. The doing away with the spoils system, and the establishing of civil service and the merit system, are in a great degree relieving our representatives from the most unpleasant, time-taxing, degrading, part of their work, and giving them liberty to do really good work for the public welfare. All these conditions make the service attractive to a better class of men. Some effort is being made to train men systematically for politics by means of post-graduate courses in several of our colleges and universities, and in a few years the results will be very noticeable.

I know of no better opening for a young man than the field of politics, provided, he has the right qualifications and trains himself for the service. Unlike most callings, there is as yet little competition (I mean among really qualified men), and the rewards are large and immediate. There is a growing tendency to keep good men in office, and it will not be impossible for a man to spend his entire life in the public service. This is the day of the young man, and a glance over the field of our public service today will reveal a good many men under fifty, holding the highest public offices.

The broadest and most thorough education obtainable is none too much as a fitting for public life. A first-class knowledge of geography, ancient and modern history, political economy, and international law is necessary. Modern languages are almost a necessity and the classics are a great help. A knowledge of the principles of finance and taxation is essential and the ability to speak and write good English is a matter of course. The study of law is, as it has always been, an excellent preparation for public life, though not sufficient in itself. A prime requisite is the ability to think and speak easily and readily while on one's feet, and it is in this that most men fail. There are many first-rate men who would make great statesmen if they were clear thinkers and fluent speakers, but who remain unknown and obscure. On the other hand there are men in public life today of shallow brain and poor general equipment, who have advanced to high positions because they had the ability to talk glibly. Their readiness to talk easily on all occasions has induced an awed people, incapable of doing just that, to clothe them with supposed abilities and intrust to them great power.

The young man who seeks a public life, without ability to speak readily and easily, will not get far, while with it he can command recognition even if he be somewhat deficient in the more

solid qualities. He should begin to practice public speaking early and acquire confidence in himself; he should prepare his speeches carefully, use simple language, and try to forget himself entirely while speaking. He should not try to be brilliant nor essay many gestures. It is dangerous to commit to memory, although many famous speeches which have had a world-wide appreciation were committed. A few notes or headings on a card in the hand is the best method. Lessons in oratory are dangerous as one is apt to acquire mannerisms of gesture and tricks of speech, which betray the training and look studied. The best way to learn is by listening to good speakers or lecturers, and trying to adopt their good points, their ease of manner, and their simplicity, and to avoid their errors and gaucheries.

There are comparatively few first-rate public speakers, but there are many who talk fluently. If one is gifted with a fine voice and presence he has two great helps to success. It is, however, necessary to have something to say, hence the need of a well-stored mind. Few really impromptu speeches are good for anything. The things that live have been carefully prepared at some time. It is never safe to rely upon the inspiration of the moment unless the subject is a very familiar one.

POLITICS

To my mind, politics is today the most attractive field for the ambitious young man of talent and education.

After getting the best general education possible the young man bent upon a political career had best begin at the very bottom and work up for, as in any other profession, the best men are those who have gone through the various grades and know the toil and heat of the day. One never knows when he will be called upon to use the knowledge gained in the ranks.

We live under a dual system of government, state and national, and while a man may have a laudable ambition to shine in national affairs, he had best devote his earlier years to state politics or even city or town. I will suppose a young man of exceptional ability to live in a country town of some two thousand people. Such a town is governed by a body of men called selectmen (three in number). They are elected annually at town meeting. As these men are supposed to be the town fathers and men of experience it may not be possible to get elected at once, and it may be necessary to attend several town meetings and do a good deal of political hustling before the aspirant has brought himself sufficiently into the lime light of public notice to gain the coveted office. But at last he is successful and he serves two or three years as selectman.

The duties of such an office are numerous and call for good talents. These three men manage the whole business of the town, they look after the roads, the schools, the poor, they pay the bills, borrow the money, and appoint many junior officers. It is the best of training for any man, and gives an opportunity for the display of wisdom, sagacity and good business judgment. In this little municipality of two thousand souls these three men are supreme during their term of office.

After serving a reasonable time as selectman I should advise serving one term as county commissioner. You know the county is managed by a board of men (usually three) called county commissioners whose duties to the larger municipality are in many ways similar to those of selectmen in towns. During his term as county commissioner he will deal in larger units and with more people. His radius of action will be extended; he will have a broader range of vision and will, in addition, be brought in contact with men from other parts of the state, for county officers have to deal with other county officers.

The next step would naturally be to go to the legislature and as, during his term as selectman and county commissioner, he has built up a pretty good acquaintance in his town and county,

it will not be difficult to get an election. In going to the Capital and taking his seat in a legislative body he is turning from executive to legislative functions, but he will find that his previous public service will stand him in good stead, for many of the questions brought before him deal with town and county affairs, with which he is already familiar. His first term in the legislature should be chiefly given to listening, learning the methods of business, the rules of parliamentary procedure, the courtesies of debate and the manners of successful leaders. Most of his time out of the House will be occupied with committee work, most excellent training. He should spend a good deal of time studying parliamentary law and watching the presiding officer. Several terms in the House will not be thrown away. It is the best possible school of politics and one gets rules, procedure and method driven home in the hard school of experience. Nothing will fasten a rule more clearly in one's mind than being called to order for breaking it.

Possibly our young politician whose supposed career we are following may aspire to preside over the House of which he has been a member for several terms. It is probable that being a bright and active fellow he has during his terms of service occupied the chair on several occasions at the request of the Speaker, so that he feels com-

petent to fill it. Should he be successful in his campaign for the speakership he will find the duties pleasant but exacting and, at times, trying, but withal most illuminating and broadening. Holding such a position gives a man confidence in himself, teaches him to meet emergencies, to think quickly and gives him a control over men. It is in such places that leadership is developed. It is also a splendid school for parliamentary law, for a man must have his Cushing, or whatever book he follows, at his tongue's end.

From Speaker of the House one may step into most any political position, but our young man is in no haste. He wants to learn his trade and master his tools, therefore, instead of running for Congress and jumping into national politics he concludes to go to the State Senate. You know states are divided for senatorial purposes into districts and he announces himself a candidate in his district and is elected. His service in the State Senate is quieter than in the House, less strenuous, more dignified and perhaps not so entertaining nor enlightening, but still it is interesting and he meets a lot of good men of a little different grade. He gets more in touch with his mates, it being a smaller and more select body, and he has more time for careful study and examination of the questions presented. His past experience makes him a man to be consulted,

gives him important committees, and makes him a frequent occupant of the presiding officer's chair. In his second term in the Senate he is elected President and makes a good one.

Graduating from his position as President of the Senate he looks around for more experience and, as his position as Speaker and President, have given him a taste for executive work he concludes to run for the Governor's Council. (In the State I have in mind the Governor's Council still exists, a sound and wholesome relic of Colonial days.)

For councilor purposes the state is divided into five districts and the next year he takes his place in the Council Chamber at the State House together with four other men who have emerged from the last campaign successfully. His work is now of an altogether different character. While heretofore he has been making laws he now has to pass on laws made by others, and then execute those on the Statute Book. He has become a part of the executive force of the state with a veto power even on the Governor himself, for three Councilors are equal to one Governor. The Council has to examine all laws passed by the Legislature and advise the Governor whether to sign them or not. They have to be consulted on nearly all appointments, removals, pardons, expenditures, etc. They have control of the State

Institutions like Prisons, Asylums, Homes, Hatcheries, etc. They have grave responsibilities and a multitude of details to master. They are a great help to the Governor and help share his responsibilities. Here again is a fine school for our young politician. In one term a man can get all he needs out of this position and by this time if he has the making of a man he is well known in the State, in fact a marked man.

There is only one further state office to which our young politician can now aspire and that is the office of Governor, and having been successful in his previous ventures and having made a good name for himself for honesty, high mindedness and devotion to his duty, likewise having a broad acquaintance throughout the state, he will not find it difficult to reach his goal. In filling the office of governor he will have an opportunity to use all the talents he possesses and all the knowledge he has acquired during his thorough political training. While filling the office of Governor he will be thrown more or less with the representatives of other states and will become more or less a national character, if he has the qualities that I am assuming he possesses. In some states the gubernatorial chair is the stepping stone to higher honors, or rather to national honors, and frequently a man, after his term of office as Governor, is sent to Congress or to the Senate.

He is sometimes selected as a foreign ambassador or a member of the Cabinet; and we will now leave our young politician to pursue his further career unaided.

XXXIX

SERVICE IN THE PHILIPPINES

AFTER eight years' occupation by America of the Philippine Islands, two facts are apparent: first, that great and lasting benefits have resulted to the native inhabitants, even though large expense has been incurred by the United States, which perhaps will never be recouped; and second, that whether the taking over of the islands was a wise or unwise step for the American people, no prospect now appears for immediate withdrawal.

Hence there have arisen in the Orient unforeseen opportunities for young men who aspire to serve their country in a civil capacity and who find their path blocked at home. While the policy of our government has always been to fill every vacant place with a Filipino when one can be found competent for the work in hand, experience shows that error has been made on the side of liberality, and the native has been pushed ahead faster than his capacity warranted. Therefore, for many years a considerable number of Americans will

be needed in nearly all the various branches of the Philippine civil service.

The salaries paid will average about double the amounts received in the rural districts of the United States, and at least fifty per cent more than the compensation usually found in our large centers of population. This was necessary in order to attract men of suitable character. Even with this encouraging stimulus, the heads of several departments at Manila are today pleading for more stenographers, bookkeepers, teachers, civil engineers, and trained men in other lines. A stenographer begins at $1,200 per year, with twenty days' absence each year in the islands on full pay and a permit to spend two months in the United States each period of three years, with full pay for the four months (one month each way being allowed for the journey); and he also obtains a greatly reduced government rate for his transportation, both on the Pacific and by rail east from San Francisco or Seattle. He may be advanced to $1,600 per year, the maximum salary paid to a stenographer. But if he is a man of force, industry, and initiative, he always has an opening for promotion to some higher place, such as assistant director of a bureau. There are many such instances in the islands.

One very satisfying feature of the American

administration of the islands has been the complete absence of politics. In all appointments, except to the very highest posts, the question is never asked or thought of as to how an applicant voted at home. This feature is one which ought to appeal to the young man who is really interested in the matter from proper motives of a legitimate personal ambition, coupled with a desire to help his fellow men.

But in order to succeed in this class of work a young man must possess not only integrity, clean habits, truthfulness, and industry — these are essential anywhere — but he must have great reserve funds of sympathy and patience, what may be called the "missionary spirit." The Orientals look at things from so different a view point that the average American is apt to become impatient with them and then discontented with himself. Many a young Englishman has gained fame and fortune by service in India, while he might have stagnated at home. Health and climatic conditions in the Philippines are infinitely better than in India. Furthermore, the islands are not over populated, as in Porto Rico, for instance, where our other wards live.

There are nearly a thousand American teachers in the islands, who work nine months each year and draw from $90 to $135 per month and who sign the pay roll twelve times annually. As the

revenues of the islands increase, the number of American teachers is sure to be enlarged, because hundreds of towns as yet unprovided with American teachers are pleading for them. Many young men now holding positions of importance in the islands began as teachers.

Success in the Philippines is by no means confined to the government service. The new railroads which are in process of construction will employ for at least five years thousands of natives and, in the higher places, scores of Americans. The managers are today searching all over the states for suitable young men.

A New Hampshire boy not yet seventeen years of age, while on a visit to Manila, was offered $80 per month with board and lodging, to commence as a rodman with a surveying party planning the new railroads in the Island of Panay.

But the most remarkable instance of promotion on merit alone as a result of the Spanish-American war is the case of a young law student in Washington in 1898 who had learned stenography and was asked to go to Cuba at $1,200 per year. He was assigned to duty under the army officer who was acting as collector of customs. He began a diligent study of Spanish. Soon it became necessary to secure a translation of the new tariff. A Spaniard tried to enrich himself at the expense of the public, and asked an enormous sum for the

work. The young man suggested that he could do the work and avoid the proposed extortion. He was told to go ahead. In a short time the task was completed and the result excellent. The authorities sent him a check for $1,000. He declined to accept it, stating that he had drawn his regular salary and neglected his ordinary work while engaged in the translation, and that he did not think it right to receive double pay even from the government. A novel proposition, forsooth, but absolutely correct! He soon mastered the intricacies of the tariff, and his salary was increased to $2,500 per year. In 1901 a new collector of customs for the Philippines was needed; salary, $6,000 per year. The secretary of war — then Mr. Root — had observed the remarkable career in Cuba of this young man, and selected him for that important post. He filled it so successfully and at the same time became so familiar with the general conditions of the islands, and so gained the confidence and even the admiration of the Filipino people, that in September, 1906, he was appointed to the Philippine commission at a salary of $15,500 per year, and is now holding and filling that important position at the age of only thirty-two. Such is the story of W. Morgan Shuster, who probably never voted in his life. It may be safely said that he owes his brilliant rise entirely to his character,

industry, and preëminent ability. Lots of other young Americans are endowed with the first two elements of success. Some are so fortunate as to possess the third. The old phrase of Horace Greeley, "Go West, young man!" has gradually become so expanded that our youth in going west actually go to the East.

Application for full information concerning our colonies and the method of obtaining a position in their service should be made to Brigadier General Clarence R. Edwards who now presides over the Bureau of Insular Affairs, War Department, Washington, D. C.

XL

CONSULAR SERVICE

THE consular service has always had a fascination for me. It holds out the allurements of foreign travel, new peoples, and a broader view; but until quite recently it offered few inducements as a career. The only door open has been the door of political influence, and the best men would not seek position in that way. The result has been ill-trained, mediocre men in all the lower grades, and a few bright and shining lights at the top. Thanks to President Roosevelt, Secretary Root, and the last Congress, this has been largely changed. Various steps toward reform have been taken during the last few years, but a radical departure from old customs has now gone into effect. It amounts to placing the consular service under civil service rules, and we shall in a few years have a good many thoroughly trained men, and more in process of training. Promotions will be based upon merit, and there is now a chance for a man to enter as secretary of legation with the right to hope that he may some

day pass through the grades and reach ambassadorial rank. A corps of inspectors has been appointed, whose duty it is to see that consulates are properly conducted; and malfeasance and incapacity will be reported and punished.

I give below the orders issued by the President for the conduct of the service and the method of getting into it. It should be remembered that certain qualifications are requisite in addition to the ability to pass the examinations. One should have as broad an education as possible, especially in the languages.

REGULATIONS GOVERNING APPOINTMENTS AND PROMOTIONS

Whereas, the congress, by section 1753 of the Revised Statutes of the United States has provided as follows: —

"The President is authorized to prescribe such regulations for the admission of persons into the civil service of the United States as may best promote the efficiency thereof, and ascertain the fitness of each candidate in respect to age, health, character, knowledge, and ability for the branch of service into which he seeks to enter; and for this purpose he may employ suitable persons to conduct such inquiries, and may prescribe their duties, and establish regulations for the conduct of persons who may receive appointments in the civil service."

And, whereas, the congress has classified and graded the consuls general and consuls of the

United States by the act entitled "An act to provide for the reorganization of the consular service of the United States," approved April 5, 1906, and has thereby made it practicable to extend to that branch of the civil service the aforesaid provisions of the Revised Statutes and the principles embodied in the Civil Service Act of January 16, 1883.

Now, therefore, in the exercise of the powers conferred upon him by the Constitution and laws of the United States, the president makes the following regulations to govern the selection of consuls general and consuls in the civil service of the United States, subject always to the advice and consent of the senate: —

1. Vacancies in the office of consul general and in the office of consul above class 8 shall be filled by promotion from the lower grades of the consular service, based upon ability and efficiency as shown in the service.

2. Vacancies in the office of consul of class 8 and of consul of class 9 shall be filled:

(*a*) By promotion on the basis of ability and efficiency as shown in the service, of consular clerks, and of vice consuls, deputy consuls, and consular agents who shall have been appointed to such office upon examination.

(*b*) By new appointments of candidates who

have passed a satisfactory examination for appointment as consul as hereafter provided.

3. Persons in the service of the department of state with salaries of $2,000 or upwards shall be eligible for promotion, on the basis of ability and efficiency as shown in the service, to any grade of the consular service above class 8 of consuls.

4. The secretary of state, or such officer of the department of state as the president shall designate, the chief of the consular bureau, and the chief examiner of the civil service commission, or some person whom said commission shall designate, shall constitute a board of examiners for admission to the consular service.

5. It shall be the duty of the board of examiners to formulate rules for and hold examinations of applicants for admission to the consular service.

6. The scope and method of the examinations shall be determined by the board of examiners, but among the subjects shall be included at least one modern language other than English; the natural, industrial and commercial resources and the commerce of the United States, especially with reference to the possibilities of increasing and extending the trade of the United States with foreign countries; political economy; elements of international, commercial and maritime law.

7. Examination papers shall be rated on a

scale of 100, and no person rated at less than 80 shall be eligible for certification.

8. No one shall be examined who is under twenty-one or over fifty years of age, or who is not a citizen of the United States, or who is not of good character and habits and physically and mentally qualified for the proper performance of consular work, or who has not been specially designated by the president for appointment to the consular service subject to examination.

9. Whenever a vacancy shall occur in the eighth or ninth class of consuls which the president may deem it expedient to fill, the secretary of state shall inform the board of examiners, who shall certify to him the list of those persons eligible for appointment, accompanying the certificate with a detailed report showing the qualifications, as revealed by examination, of the persons so certified. If it be desired to fill a vacancy in a consulate in a country in which the United States exercises extra-territorial jurisdiction, the secretary of state shall so inform the board of examiners, who shall include in the list of names certified by it only such persons as have passed the examination provided for in this order, and who also have passed an examination in the fundamental principles of the common law, the rules of evidence and the trial of civil and criminal cases. The list of names which the board

of examiners shall certify shall be sent to the president for his information.

10. No promotion shall be made except for efficiency, as shown by the work that the officer has accomplished, the ability, promptness and diligence displayed by him in the performance of all his official duties, his conduct and his fitness for the consular service.

11. It shall be the duty of the board of examiners to formulate rules for and hold examinations of persons designated for appointment as consular clerk, and of such persons designated for appointment as vice consul, deputy consul, and consular agent, as shall desire to become eligible for promotion. The scope and method of such examination shall be determined by the board of examiners, but it shall include the same subjects hereinbefore prescribed for the examination of consuls. Any vice consul, deputy consul, or consular agent now in the service, upon passing such an examination shall become eligible for promotion, as if appointed upon such examination.

12. In designations for appointment subject to examination and in appointments after examination, due regard will be had to the rule, that as between candidates of equal merit, appointments should be so made as to secure proportional representation of all the states and territorities in the consular service; and neither

in the designation for examination or certification or appointment will the political affiliations of the candidate be considered.

THEODORE ROOSEVELT.

The White House,
June 27, 1906.

NOTE. — By an executive order dated December 12, 1906, paragraph 2, subdivision (*a*), and paragraph 11 of the above regulations have been amended so as to include student interpreters on the same footing as vice consuls, deputy consuls, and consular agents.

REGULATIONS GOVERNING EXAMINATIONS

In pursuance of the executive order of June 27, 1906, whereby the president promulgated regulations governing appointments and promotions in the consular service, the following rules have been adopted by the undersigned board of examiners, who, under that order, have been designated to formulate rules for and hold examinations of applicants for admission to the consular service whom the president shall have designated for examination to determine their eligibility for appointment therein:

1. The examinations will be the same for all grades and will be to determine a candidate's eligibility for appointment in the consular service, irrespective of the grade for which he may have been designated for examination and without regard to any particular office for which he may be selected.

2. The examinations will consist of an oral and a written one, the two counting equally. The object of the oral examination will be to determine the candidate's business ability, alertness, general contemporary information, and natural fitness for the service, including moral, mental, and physical qualifications, character, address, and general education and good command of English. In this part of the examination the applications previously filed will be given due weight by the board of examiners, especially as evidence of the applicant's business experience and ability. The written examination will include those subjects mentioned in the executive order, to wit, French, German, or Spanish, or at least one modern language other than English; the natural, industrial, and commercial resources and the commerce of the United States, especially with reference to possibilities of increasing and extending the foreign trade of the United States; political economy, and the elements of international, commercial, and maritime law. It will likewise include American history, government, and institutions; political and commercial geography; arithmetic (as used in commercial statistics, tariff calculations, exchange, accounts, etc.); the modern history, since 1850, of Europe, Latin America, and the far East, with particular attention to political, commercial, and economic

tendencies. In the written examination, composition, grammar, punctuation, spelling, and writing will be given attention.

3. To become eligible for appointment, except as student interpreter, in a country where the United States exercises extra-territorial jurisdiction, the applicant must pass the examination outlined above, but supplemented by questions to determine his knowledge of the fundamental principles of common law, the rules of evidence, and the trial of civil and criminal cases.

4. The examinations to be given candidates for appointment as student interpreters will follow the same course as in the case of other consular officers, provided, however, that no one will be examined for admission to the consular service as a student interpreter who is not between the ages of nineteen and twenty-six, inclusive, and unmarried; and, provided further, that upon appointment each student interpreter shall sign an agreement to continue in the service so long as his services may be required, within a period of ten years.

5. Upon the conclusion of the examinations the names of the candidates who shall have attained upon the whole examination an average mark of at least eighty, as required by the executive order, will be certified by the board to the secretary of state as eligible for appointment in

the consular service, and the successful candidates will be informed that this has been done.

6. The names of candidates will remain on the eligible list for two years, except in the case of such candidates as shall within that period be appointed or shall withdraw their names. Names which have been on the eligible list for two years will be dropped therefrom and the candidates concerned will not again be eligible for appointment unless upon fresh application, designation anew for examination, and the successful passing of such second examination.

HUNTINGTON WILSON,
Third Assistant Secretary of State.
WILBUR J. CARR,
Chief Consular Bureau.
F. M. KIGGINS,
Chief Examiner, Civil Service Commission.

Department of State,
Washington, December 13, 1906.

CLASSIFICATION OF CONSULS GENERAL AND CONSULS

Consuls general and consuls of the United States are classified and graded as follows:

CONSULS GENERAL

Class I. — Salary, $12,000 (2 in all). London, Paris.
Class II. — Salary, $8,000 (6 in all). Berlin, Habana, Hamburg, Hongkong, Rio de Janeiro, Shanghai.
Class III. — Salary, $6,000 (8 in all). Calcutta, Cape

Town, Constantinople, Mexico City, Montreal, Ottawa, Vienna, Yokohama.

Class IV. — Salary, $5,500 (11 in all). Antwerp, Barcelona, Brussels, Canton, Frankfort, Marseilles, Melbourne, Panama, St. Petersburg, Seoul, Tientsin.

Class V. — Salary, $4,500 (18 in all). Auckland, Beirut, Boma, Buenos Aires, Callao, Chefoo, Coburg, Dresden, Guayaquil, Halifax, Hankow, Mukden, Munich, Newchwang, Rome, Rotterdam, St. Gall, Singapore.

Class VI. — Salary, $3,500 (9 in all). Adis Ababa, Bogota, Budapest, Guatemala, Lisbon, Monterey, San Salvador, Stockholm, Tangier.

Class VII. — Salary, $3,000 (3 in all). Athens, Christiania, Copenhagen.

CONSULS

Class I. — Salary, $8,000. Liverpool.

Class II. — Salary, $6,000. Manchester.

Class III. — Salary, $5,000 (8 in all). Belfast, Bremen, Dawson, Havre, Kobé, Lourenco Marquez, Lyons, Pretoria.

Class IV. — Salary, $4,500 (12 in all). Amoy, Amsterdam, Birmingham, Cienfuegos, Foochow, Glasgow, Kingston (Jamaica), Nottingham, Santiago de Cuba, Southampton, Veracruz, Valparaiso.

Class V. — Salary, $4,000 (21 in all). Bahia, Bombay, Bordeaux, Colon, Dublin, Dundee, Harbin, Leipzig, Nanking, Naples, Nuremberg, Para, Pernambuco, Plauen, Reichenberg, Santos, Stuttgart, Toronto, Tsingtau, Vancouver, Victoria.

Class VI. — Salary, $3,500 (32 in all). Apia, Barmen, Barranquilla, Basel, Berne, Bradford, Chemnitz, Chungking, Cologne, Dalny, Durban, Edinburgh, Geneva, Genoa, Georgetown (Guiana), Lucerne, Mannheim, Montevideo, Nagaski, Odessa, Palermo, Port Elizabeth, Prague, Quebec, Rimouski, San Juan del Norte, Sherbrooke, Smyrna, Three Rivers (Quebec), Vladivostok, Winnipeg, Zurich.

Class VII. — Salary, $3,000 (47 in all). Aix la Chapelle,

Annaberg, Barbados, Batavia, Burslem, Calais, Carlsbad, Colombo, Dunfermline, Dusseldorf, Florence, Freiburg, Ghent, Hamilton (Ontario), Hanover, Harput, Huddersfield, Iquitos, Jerusalem, Kehl, La Guaira, Leghorn, Liege, Mainz, Malaga, Managua, Nantes, Nassau, Newcastle (N. S. W.), Newcastle-on-Tyne, Port Antonio, Port au Prince, Sandakan, Serville, St. John (N.B.), St. Michael's, St. Thomas (W. I.), San José (C. R.), Sheffield, Swansea, Sydney (N. S. W.), Sydney (N. S.), Tabriz, Tampico, Tamsui, Trieste, Trinidad.

Class VIII. — Salary, $2,500 (61 in all). Acapulco, Aden, Alexandretta, Algiers, Bamberg, Batum, Belize, Bergen, Breslau, Brunswick, Cardiff, Chihuahua, Ciudad Juarez, Ciudad Porfirio Diaz, Collingwood, Cork, Crefeld, Curacao, Eibenstock, Gothenburg, Hamilton (Bermuda), Hull, Jeres de la Frontera, La Rochelle, Leeds, Madrid, Magdeburg, Malta, Maracaibo, Martinique, Matamoros, Mazatlan, Milan, Moscow, Nice, Nogales, Nuevo Laredo, Orillia, Plymouth, Port Hope, Port Limon, Prescott, Puerto Cortes, Rheims, Rosario, Roubaix, St. Etienne, St. John's (N. F.), Sarnia, Sault Ste. Marie, Stettin, Tamatave, Tegucigalpa, Teneriffe, Trebizond, Valencia, Weimar, Windsor (Ontario), Yarmouth, Zanzibar, Zittau.

Class IX. — Salary, $2,000 (70 in all). Aguascalientes, Antigua, Asuncion, Bagdad, Belleville, Belgrade, Bristol, Calgary, Campbellton, Cape Gracias a Dios, Cape Haitien, Cartagena (Colombia), Castellamare di Stabia, Catania, Ceiba, Charlottetown, Coaticook, Cornwall, Durango, Ensenada, Fort Erie, Funchal, Gaspé, Gibraltar, Glauchau, Gorée-Dakar, Grenoble, Guadeloupe, Hermosillo, Hobart, Iquique, Jalapa, Jamestown, Kingston (Ontario), La Paz (Mexico), Limoges, Manzanillo, Maskat, Messina, Moncton, Niagara Falls, Patras, Port Louis, Port Rowan, Port Stanley (F. I.), Progreso, Puerto Cabello, Puerto Plata, Riga, Rouen, Saigon, St. Christopher, St. Hyacinthe, St. John's (Quebec), St. Pierre, St. Stephen, Saltillo, Sierra Leone, Sivas, Stavanger, Suva, Tahiti,

Turin, Turks Island, Tuxpam, Utila, Venice, Warsaw, Windsor (N. S.), Woodstock.

GENERAL INFORMATION REGARDING CONSULAR OFFICES

Vice Consular Officers

A vice consular officer takes the place and exercises all the functions or powers of a consul general or consul when the latter is temporarily absent or relieved from duty. He receives no salary except in the absence of the consul general or consul, when he receives one-half of that officer's salary (in the absence of an agreement to the contrary). For the period during which the consul general or consul may be absent beyond sixty days and the time necessary to make the journey to and from the United States, the vice consular officer receives the entire salary of the office. It is usual to give a vice consul regular employment as a clerk in the consular office, in which case he receives regular compensation at the rate of from $300 to $1,500 a year, according to the importance of the office and the nature of the work to be performed.

Deputy Consular Officers

A deputy consular officer is a subordinate of a consul general or consul, under whose supervision

he exercises consular functions, usually of a routine character. He never assumes the responsible charge of the office, that being the duty of the vice consul. His compensation is limited to that which he may receive for performing duties as clerk, and varies from $300 to $1,500 a year, according to the importance of the post.

Consular Agents

A consular agent is an officer subordinate to a consul general or consul, exercising similar powers at ports or places different from those at which the consulate general or consulate is situated. He acts under the direction of his principal, and one-half of the fees collected by him constitute his compensation, which may not exceed $1,000 in any one year.

Consular Clerks

There are thirteen consular clerks, who are appointed by the president and hold office during good behavior. They may be assigned, from time to time, to such consular offices and with such duties as the secretary of state may direct. When so assigned they are subordinate to the principal officer at the post, and perform such clerical or other duties of the office as he may designate. They receive a salary of $1,000 a year for the first five years, and thereafter $1,200 a year. Can-

didates for the office of consular clerk must be over eighteen years of age.

Clerks in Consular Offices

Clerks are employed at the various consular offices and receive compensation varying, as a rule, from $300 to $1,500 a year, beginning with their arrival and entrance upon duty at the consular office. Their duties embrace bookkeeping, letter writing, recording correspondence, and routine consular work. They are frequently appointed upon nomination of a consul general or consul, but the department of state exercises its right to make independent appointments whenever that course appears to be in the interest of the service. Preference is given to American citizens for clerkships of all grades, and only such citizens will be considered for appointment to positions the compensation of which is $1,000 a year or more.

Student Interpreters

Provision is made for ten student interpreters at the legation to China and six at the embassy to Japan. These officers receive annual salaries of $1,000 and allowances for tuition of $125 each, and are required to study the language of the country with view of supplying interpreters to the American diplomatic and consular offices in

China and Japan. After acquiring the language of the country, they may be assigned to duty in diplomatic or consular offices, and are eligible for promotion to the office of interpreter and to that of consul of class 8 or 9.

Compensation of Consulars Officers

All consular officers whose respective salaries exceed $1,000 a year are prohibited from engaging in private business in the country in which they have their official residence. Consular officers are required to account for all fees collected by them, and the salaries fixed by law or regulation constitute their sole and only compensation, except as specially provided in the case of consular agents, who are compensated, up to the limit of $1,000, by one-half of the fees collected by them.

Traveling Expenses

Consuls general, consuls, vice and deputy consular officers, consular agents, and student interpreters are entitled to additional compensation of five cents a mile when traveling under orders of the secretary of state, and in going to and returning from their posts, except in connection with leaves of absence. Consular clerks are allowed actual and necessary traveling expenses, but no provision is made for traveling expenses of clerks in consular offices.

Examinations

As will be seen by reference to the foregoing regulations for promotion and examination, all candidates for the offices of consul of class 8 or 9, consular clerk, and student interpreter, and also candidates for the offices of vice and deputy consular officer and consular agent who may desire to become eligible for promotion are required to pass the prescribed examination. Candidates for the offices of vice and deputy consular officer and consular agent who do not desire to become eligible for promotion, and of clerk in a consular officer, are not required to be examined.

Department of State,
December 15, 1906.

APPLICATION FOR APPOINTMENT

I, the undersigned, hereby make application for appointment as (grade or grades of office):

1. Name in full:
2. Present permanent post-office address:
3. Date of birth:
4. Place of birth:
5. Married or single:
6. Immediate family, if any:
7. Name of state of which you are a legal resident, and the length of legal residence therein:

8. If a naturalized citizen, how and when was citizenship acquired?

9. Describe your present physical condition, and state whether you have any physical defect or infirmity. (The right is reserved to require the applicant to submit to a medical examination.)

10. At what institutions educated? State time spent in each, and general courses of study pursued:

11. What is your knowledge of foreign languages?

12. Were you ever in the public service of the United States, military, naval, or civil, municipal, state, or national? Name offices and period of service in each:

13. Did you resign voluntarily, or were you discharged from any of the positions you have held?

14. State fully every kind of occupation you have followed, including when and where you were employed; the addresses of the different employers; the length of time employed by each; salary paid in each instance; and the nature of the work performed; whether you resigned or were discharged; if an independent business man, the nature of your business; whether engaged in export trade; how long engaged in business; average annual profits:

15. Name the competent and responsible persons who have vouched for you in writing:

(Signature of applicant.)

NOTE. — The moral character, integrity, good deportment, and ability of the applicant and his qualifications as set forth in this application must be attested by competent and responsible persons. In order that due weight may be given these recommendations, the persons who vouch for the applicant's qualifications as set forth above should fully state the facts which enable them to do so.

XLI

THE ACTOR

ACTORS are generally born, not made. If one has the instincts of an actor, they are almost certain to crop out during childhood and youth. Of course, many men who have the requisite qualities never become actors but do succeed in other callings. To succeed as an actor, one must be born with an imaginative temperament, must possess powers of mimicry or imitation, must have a good memory, voice, and presence, and be self-possessed. In addition to these qualities, a broad education, travel, and general self-cultivation are necessary if one is to get far. Besides all this, one should have a thorough training, which, I fancy, can better be obtained by actual practice in some company than in going to a school of acting. One must begin with very small parts and carefully watch and study those in whose footsteps he would follow.

In the days of the old stock companies like that of the Boston Museum (now, unhappily, a thing of the past), fine opportunities were offered the

beginner. New plays were constantly being put on, — Shakespearian, the old comedies, masterpieces of the great dramatists, — and plenty of experience could be gained. The taste of the public is now largely vitiated by the flimsy comic opera, made up of vulgarity, tinsel, and marching Amazons, or the farce comedy, composed of horse play, dialect, slang, and the patter of bar-rooms, the prize ring, and the half-world. Here and there stock companies find audiences, but I regret to say they do better in the West than in the East. A very good company, however, plays to profitable audiences at the Castle Square Theatre in Boston.

The life of an actor is arduous in the extreme. His triumphs are dearly bought, but are sweet beyond measure, and the life seems to have a great fascination for those who once enter it. How rare it is to hear of an actor giving up his profession, and going into any other line of work! Lawyers, ministers, doctors, journalists, merchants, are frequently changing, but once an actor, always an actor. In England and on the Continent, the stage still seems to be on a somewhat higher plane than it is here, and an actor has recently been knighted by King Edward. Since Booth died, we have no one who ranks with Salvini, Irving, or Coquelin. We have many low comedians, but we have few good tragedians or

all-round actors, so there is plenty of room at the top.

The rewards of a really first-rate actor are large both financially and in reputation, but the life is a wearing, body-wasting, soul-trying existence. Nevertheless, if one hears the call of the stage, and has the qualities I have outlined, let him follow his guiding star and see where it leads. Possibly he may be a Booth, or if not, a Goodwin or a Francis Wilson. To be a Harrigan or a Schoolcraft is something. To elevate and instruct is grand; to amuse and entertain is even worth while.

XLII

THE ARMY

THERE are two ways of getting into the United States army as an officer:

First. — By going through the United States Military Academy at West Point.

Second. — By enlisting in the ranks, and then passing the necessary examinations for promotion.

The method of getting into West Point is as follows:

Appointments

How made. — Each congressional district and territory — the District of Columbia and also Porto Rico — is entitled to have one cadet at the academy. Each state is also entitled to have two cadets from the state at large, and forty are allowed from the United States at large.

The appointment from a congressional district is made upon the recommendation of the congressman from that district, and those from a state at large upon the recommendations of the senators of the state. Similarly the appointment from a territory is made upon the recommendation of

the delegate in congress. Each person appointed must be an actual resident of the state, district or territory from which the appointment is made.

The appointments from the United States at large and from the District of Columbia are made by the president of the United States upon his own selection. The cadet from Porto Rico, who must be a native of that island, is appointed by the president on the recommendation of the resident commissioner.

Alternates. — For each candidate appointed there may be nominated two alternates. The principal and each alternate will receive from the war department a letter of appointment, and must appear for examination at the time and place therein designated:[1] those previously accepted by the academic board on certificate as mentally qualified, appearing for physical examination only.

Examination and Admission of Candidates

The following are extracts from the regulation of the military academy, relating to the examination of candidates for admission, and will be strictly adhered to:

19. Candidates selected for appointment, unless accepted under the provisions of paragraph 21, shall appear for mental and physical examination before boards of army officers to be convened

at such places as the war department may select,[1] on the first day of May, except when that day comes on Sunday, in which case the examination shall commence on the following Tuesday. Candidates who pass successfully will be admitted to the academy without further examination upon reporting in person to the superintendent at West Point before twelve o'clock noon on the 15th day of June of the same year.

20. Each candidate before he shall be admitted to the academy as a cadet must show, by the examination provided for in paragraph 21, that he is well versed in the following prescribed subjects, viz: reading, writing, spelling, English grammar, English composition, English literature, arithmetic, algebra — through quadratic equations, plane geometry, descriptive geography, and the elements of physical geography, especially the geography of the United States, history of the United States, the outlines of general history, and the general principles of physiology and hygiene.

Qualifications

No candidate shall be admitted who is under seventeen, or over twenty-two years of age, or less than five feet four inches in height at the age

[1] The board before which a candidate is directed to appear will be, without exception, the one convened at the place nearest or most convenient to his home, or to the school at which he is in regular attendance at the time of appointment.

of seventeen, or five feet five inches in height at the age of eighteen and upwards, or who is deformed, or afflicted with any disease or infirmity which would render him unfit for the military service, or who has, at the time of presenting himself, any disorder of an infectious or immoral character. Candidates must be unmarried.

Each candidate must on reporting at West Point present a certificate showing successful vaccination within one year; or a certificate of two vaccinations made at least a month apart, within three months.

The graduate of the United States Military Academy leaves that institution with as good a theoretical knowledge of science and art as can be gained from any college in the country. All that the cadet needs after graduation is a year of practical work along the line of the profession he may decide to take up. As is to be expected nearly every cadet upon completing the course of instruction at West Point desires to go into the army. Like every other calling the army has its advantages and disadvantages. Everything considered, the former more than offset the latter. Each cadet after graduation is commissioned a second lieutenant either in the engineer corps, the artillery corps, the cavalry, or the infantry, according to his class standing or his choice, in the order named.

All officers in the army are not West Point graduates, however. Many officers, now in the service, came from civil life and from the volunteers at the time of the trouble with Spain in 1898, and again, when the army was increased in 1901.

The law now provides that any enlisted man who is recommended by his immediate commander, after having served two years honestly and faithfully in the ranks may become a candidate for a commission, provided, his application is approved by each higher commander through whose hands it must pass, until it finally reaches the secretary of war. If he passes the examination that is prescribed, which, by the way, is one of the hardest that can be given, he is eligible for a commission in the army, the same as a graduate from the academy. Then if any other vacancies exist, six graduates from that number of military schools throughout the country (the list of schools being published from time to time by the war department), who stand number one in their classes at these schools, are also eligible for commissions as second lieutenants in the army, if named by the secretary of war.

The pay that a young officer receives is, in many cases, more than that which the average college man gets after graduation. For a mounted second lieutenant the salary is $1,500 per year while that of a second lieutenant not mounted is

$1,400. An officer's pay is increased five per cent every five years, according to the rate of pay of the rank he may be serving in at the time of the increase. As the four years at the academy, and the time a man has served in the ranks, counts towards this increase, the cadet gets his first advance the next year after graduation, and the officer from the ranks gets his three years after being commissioned.

In addition to his yearly pay, an officer in the army is entitled to quarters, a young lieutenant's allowance being two rooms, bath and kitchen, a first lieutenant's, three rooms, a captain's, four rooms, and so on according to rank, each higher grade entitling the officer to one additional room. In nearly every case an officer has more rooms than he is allowed by law. In lieu of quarters in kind, when on duty where there are no quarters available, an allowance of $24 a month is granted to lieutenants, $36 to captains, and for each higher grade $12 additional is allowed. The cost of furnishing and lighting an officer's quarters must be borne by the officer. But he is allowed a certain amount for heating quarters. In addition to this the privilege of the army commissary is granted to an officer and his family. This makes his grocery and meat bills smaller than a civilian's for the same articles.

On the other hand an officer must purchase all

his uniforms. Since the new uniform order went into effect this means no small expenditure of money on entering the service, and the keeping of the uniforms at all times in the best condition is expensive. The average officer goes into society a good deal and, therefore, must have civilian's clothes, so his tailor's bills are usually larger per year than those of his brother in civil life. Many other demands are made on an officer of the army, which are not made upon a civilian. As a result the few emoluments an officer receives in addition to his salary are generally offset by these extra expenses.

In case an officer is injured or his health impaired so that he is no longer fit for actual service, he is retired for disability, provided, either the injury or impairment of health has been incurred during service or "in line of duty." In which case, the officer is entitled to draw pay for the remainder of his life at the rate of three quarters of his salary at the time of retirement. An officer, while on the active list and after retirement, is entitled to free medical attendance. His family is also given this privilege, exclusive of the cost of medicine. The pay and perquisites of an army officer are the same today as they were thirty years ago, while the cost of living has increased at least twenty-five per cent. Legislation has been proposed, and may sometime be adopted, to

increase the pay of officers in the army in proportion to the increased cost of living.

In the days of "the old army" an officer stationed on the frontier often found that time hung heavily on his hands, except when actually engaged in Indian fighting. Routine work seldom occupied more than five or six hours of his time. The remainder was his to spend as he pleased. Such is not the case in the army today. In the summer months, maneuvers, practice marches, and practical work in the field with troops take nearly the entire day.

Since 1902 the war department has required a systematic course of study for all officers below the rank of major. The post school course, as it is called, takes three months of each year for three years, usually in the winter months or during the period when so much time cannot be spent out of doors in the practical work with troops. Five or six hours of the time of each officer, who is required to take the course, is occupied daily, including the time spent in study and in the recitation room. Routine work usually takes three or four hours more. The course includes study and practical work in military and international law, administration, drill regulations, firing regulations, field regulations, organization and tactics, field engineering, military topography and sketching, hippology and military hygiene. For artillery

the course includes also ballistics, coast defense and sea coast engineering. For engineers the course is even more advanced.

After attaining the required certificate of efficiency in this course, those officers that stand highest are eligible for detail to the Infantry and Cavalry School at Fort Leavenworth, the Artillery School at Fort Monroe, Va., the Engineering School at Washington Barracks, and the School of Submarine Defense at Fort Totten, New York. Honor graduates or those who attain 97 per cent. for the entire year's course at one of the above-mentioned schools are eligible for the course of instruction at the Staff College at Fort Leavenworth. The detail for this course has for the last two years been much sought after by all officers that are entitled to be sent there. The next course, and one that will be excellent as soon as it has advanced a little, — for it is still in its formative period, — is at the War College in Washington. Only graduates of the Staff College, and officers specially selected by the general staff of the army can be detailed for this course. In addition to the above-mentioned schools there is the Army Medical College in Washington, where young surgeons and assistant surgeons are sent for a year's course of instruction.

As things stand just now every officer's work is laid out for him, and he has little spare time if he

takes the opportunity to get as much as possible out of his required instruction. But the end of his school training will find him well fitted to carry out any work that he may have thrust upon him.

After an officer has served for two years with his regiment there are many pleasant details for special and extra work that may fall to his lot. These include details as instructors at military schools, duty with state militia regiments, recruiting details, duty as military attachés at foreign embassies, and duty on river and harbor improvements for engineer officers.

There are few vocations in life, where a young man has a better chance to study human nature or where he is called upon to exercise greater executive and administrative ability than in the army. Several thousand men are enlisted for the army every year, and they agree to serve three years unless sooner discharged. Every junior officer has immediately under his command from 65 to 150 men. They come from all walks of life; and from every part of the country. The young officer soon finds that he must use different methods of handling the different classes of men in order to attain the best results, and at the same time have a well organized and disciplined command.

Many officers, after a few years service in the army have resigned for the purpose of entering

upon other work. Many of them have obtained flattering and lucrative positions because they were found to be well fitted to hold them by their experience with the men of their commands and with the work of administration, that is required by army regulations.

There is no calling that requires greater use of judgment and common sense than the army. This is true not only in time of war but in time of peace. Details of every kind must be carefully attended to, otherwise that splendid discipline that has always characterized the United States army would soon be lost.

XLIII

THE NAVY

THERE are few, if any, professions open to Americans which afford a pleasanter career than the navy, provided, a man does not have financial ambitions and is willing to face the hardship of being separated from his family during a large portion of his youth and middle age. Americans are proud of their navy on account of its magnificent record and its high standard of efficiency and training and there is no question but that it is extremely popular with the people.

The navy, like the army, can be summed up in two general classes, the commissioned officers and the enlisted men. A very large percentage of the commissioned officers are graduates of the naval academy and we assume that a boy intends entering the cabin through this channel. The school for commissioned officers in the navy is the naval academy at Annapolis, Maryland, and it is conducted along the same general lines as the school for the army at West Point.

The rules and regulations governing the ap-

pointment of candidates to the academy are practically the same as those given elsewhere for admission at West Point, except that the age limit is somewhat lower and boys must be between fifteen and twenty years of age at the time of entering. The appointments made by the senators and congressmen are much sought after and, as a rule, are the result of competitive examinations. The " appointments at large," as they are called, are in the gift of the president of the United States and during late years have practically all been given to the sons of deceased naval officers, or of those on active service. The justice and wisdom of this course will be apparent when it is remembered that, as a rule, naval officers have no permanent home and are without political influence.

On entering the naval academy, the boy receives the pay of $500 per year for the four years he is there, and on account of the way of living, any boy can easily get along on this amount. The entrance examinations are in the spring and fall of each year, but the majority of the boys in recent years have entered in the spring, so as to obtain the advantage of the summer's practical work before entering on the regular school work in the fall. This first summer is spent almost entirely on practical work such as boat drills, sail drills, infantry and artillery tactics, etc., but a certain amount of study is also compulsory. Recitations

begin with the regular school year about October and continue till the following June.

During the four years' course, the studies are largely scientific, as the modern naval officer must be thoroughly versed in this branch on account of the scientific and engineering problems constantly presented by the complex type of modern warships. The life is not an easy one, and the students are required to work hard. There is a great deal of practical work and as a class they are probably in as good physical condition as any boys of their age in the world. Their work is diversified as they must not only learn the practical side of a naval officer's life, but in addition must know a good deal of the soldier's work, drills, etc.

The classes are numbered, the senior being known as the first and the freshman as the fourth or "plebes." Graduation is generally in the spring, but recently on account of lack of officers, the graduating classes have been leaving the academy earlier in the year.

At the end of the scholastic year in June, the three remaining classes embark on their annual practice cruise, there being certain ships assigned for this work each year. During this cruise, the midshipman learns the practical side of the sailor's life in all its phases, the cruises usually extending along the coasts of New York and New England and in some cases to Europe. The cruise

usually ends about the first of September and then the midshipman receives one month's leave of absence or vacation, returning about the first of October for the next year's work.

On graduation, the midshipman does not immediately receive his commission, but is known as a "midshipman on probation," his pay being increased to $900 a year, and for two years he is attached to the cruising ships. At the end of this time, he returns to the naval academy and undergoes another examination, before he finally receives his commission as an ensign in the navy. The rank he holds in his class materially affects his chances of success, as the members are commissioned in the order in which they stand in the class at the end of the six years. Under the present laws, promotion in a grade and from one grade to another is by seniority, so that a boy graduating in the middle of a class of 100, may be 50 on the list of ensigns when his classmate at the head has already received his commission as lieutenant.

On receiving his commission as an ensign, he is, in almost all cases, assigned to a cruising ship and at that time takes up the regular work of a commissioned officer in the navy. There is little chance during the first few years of service of getting much shore duty, as the demand for officers on the ships is now very great. He may be as-

signed to any one of the four great divisions of our fleet: the North Atlantic, which includes all the vessels cruising on our Eastern coasts; the South Atlantic, which includes all those on the coast of South America; the Pacific, which includes those on the Pacific coast; and the Asiatic division, which includes those at our Philippine possessions, and on the coasts of China, Japan, and Europe.

The number of ships on these stations varies with conditions but a majority are generally at some point on the Eastern coast. On board the larger men of war, the officers are divided into three classes: the captain, who is by himself; the ward room, which includes the senior officers with the exception of the captain; and the steerage, where the junior officers mess.

The old days of an easy life for the commissioned officer are past as the modern warship is so complex that it requires all of each officer's time to take care of the particular part of the ship for which he is responsible. The life is a most interesting one, the associates are pleasant, the way of living is most attractive and the officer has the opportunity of seeing foreign countries under more favorable conditions than the great body of Americans. As he grows older, a certain part of his time will be spent on land, as an instructor or head of department at the naval academy, at

Washington connected with the department, or at one of the numerous navy yards scattered along our coast.

On account of the present system of promotion by seniority, advancement is slow and on the average a man will not reach the grade where he can command a ship until he is considerably over forty. The danger of the present system is becoming well understood and legislation will probably be enacted in the near future which will provide for promotion by selection, above certain grades, as is customary in other well organized navies.

The rank to which a man may rise in the navy with the sea pay per year of each grade is as follows: rear admiral, $7,500; captain, $3,500; commander, $3,000; lieutenant commander, $2,500; lieutenant, $1,800; lieutenant (junior grade), $1,500; ensign, $1,400. At the age of sixty-two he is arbitrarily placed on the retired list and relieved from all further active duty, his pay being three-fourths of the sea pay of the grade in which he was retired, and at his death his widow receives a pension.

It will be seen from these figures that there is little opportunity as a naval officer for a man to become rich, but at the same time there is provision not only for his active life but for his old age which counts for something.

The government regulations provide that an enlisted man may become a commissioned officer, within certain age limits and after passing severe examinations, but there are not many who have earned commissions in this way, as the naval officer of today is of necessity a highly trained specialist.

To boys who do not have an opportunity of getting a commission, the life of the enlisted man in the navy offers many attractions and advantages. The great feeder for the enlisted men is the naval apprentice system, whereby boys are taken and trained for the naval service, first on land and then in special ships of the fleet, which are known as " apprentice ships," the crews being largely composed of these naval apprentices. After this training, the apprentice enters the navy as an able seaman. He will find his shipmates and companions as clean, respectable, and bright a lot of men as can be found anywhere. The discipline is strict but is not very different in character from that of a well organized and well conducted manufacturing establishment in this country .

The enlisted man is well fed at the minimum cost, he always has a warm place to sleep, his living quarters are clean and his chances of seeing foreign countries are infinitely better than those of his countrymen of equal opportunities and advantages. He has a chance to rise to be a

warrant officer with the maximum pay of $1,800 per year; or he may be a petty officer, and certain grades of this type receive $65 per month. This is much more than the same pay on shore as his quarters are free and the government allowance for rations pays a large part of his board.

There can be no more honorable profession for an American than the United States navy, and the country expects those in this service to sustain a character and grade of conduct which will reflect credit on the country, whether the service be abroad or at home.

The following extract from the speech of the Honorable C. J. Bonaparte, ex-secretary of the navy, which was delivered to the graduating class of midshipmen at the naval academy in 1906, points out what is required of those who serve our country on the sea:

"For each one of you it is a legal duty to behave as a gentleman, and each of you may be tried and punished as for a crime if he fails in this duty. Now, what is a 'gentleman'? As used in the laws and regulations governing our navy its essential meaning is that you and your brother officers have duties beyond the duties of others; that you have obligations which do not rest on all members of this community; that of you are required, a measure of self-control, a readiness for self-sacrifice, a sensitiveness in honor which it

might be neither reasonable to expect nor charitable to exact of all your fellow citizens. Moreover, since whatever else a gentleman may or may not be, he is, and is thought of always and everywhere as a man, entitled to respect; it is part of your professional duty, a part of the service due your country at your hands, a part of the solemn and eternal obligation of your oaths, that as officers you be known for such simplicity and truth, such modesty of demeanor and such purity of life as will earn for you the respect of good men."

XLIV

THE MARINE CORPS

IT is stated that the marine corps was organized before a single American war vessel went into commission in the revolutionary war. The custom was doubtless adopted from England. The marine is not exactly a sailor nor is he exactly a soldier, he is a combination of the two and performs many of the duties of each. Trained as he is both on shipboard and on shore, and accustomed by the nature of his training to the dangers on land and sea, the value of his services cannot be over estimated. Now that the old sailing vessels have gone out of use, marines are doing almost the same duties as sailors. On shipboard they are the ship's police, but in time of actual service they frequently perform all the duties of a soldier on land, and if there is any fighting going on, they are quite apt to be in it. In addition to their guard duty they keep their own part of the ship clean and are required to be drilled in the boats and in the batteries; in some

ships it is their duty to close the water tight compartments in case of collision.

Service in the marine corps may be either as an officer or as a private. And whenever I see one of the well-set-up, well-uniformed, clean-looking marine officers, I always think it must be a rather pleasant service. Not only does one get a good education, but one lives largely in the open air and is apt to see a good deal of the world. Like any other calling which involves fighting there may and probably will be some very trying experiences, but if one wishes to fight it seems to me that the marine corps offers a very attractive means. From personal observation of both officers and privates, I should say that they are an exceptionally good class of men.

Commissioned officers in the marine corps are appointed (1st) from graduates of the United States Naval Academy; (2d) from meritorious noncommissioned officers, and (3d) from civil life; the first without examination, and the second and third classes after such examination as may be prescribed by the secretary of the navy.

In entering upon the life of a marine a man must have, besides a strong physique, a good disposition, lots of courage, and plenty of patience. If he is equipped with these very necessary qualities, and wishes to join the marine corps as an officer, — not being a graduate of the naval academy, —

he must apply to the secretary of the navy for authority to take the examination. Unless, however, the applicant is in every way prepared to pass a thorough physical test, he will save himself time, trouble, and considerable unnecessary expense by not attempting this examination.

I give below the requirements, both physical and mental, for entrance into the marine corps as second lieutenant.

Candidates from civil life must be citizens of the United States between the ages of twenty-one and twenty-seven years of age, and not less than five feet six inches in height; and must conform in weight and chest measurement to a fair standard of physical proportions. Their teeth must be in good condition and their hearing unimpaired. Acuteness of vision must be eighteen-twentieths for each eye, unaided by glasses, and capable of correction by glasses to twenty-twentieths.

The physical examination of candidates will precede the mental and professional. No one found physically disqualified will be examined further. No material physical defect will, hereafter, be waived in any case for any reason. The examining board will inquire and report concerning each applicant, whether he is of good moral character or addicted to the use of intoxicating liquors.

A candidate must declare under oath that he

labors under no mental or constitutional disease or weakness, nor any other imperfection or disability which may interfere with the most efficient discharge of the duties of an officer in any climate.

After the physical test, the candidate must satisfy the board as to his knowledge of English grammar and his ability to read, write, and spell with facility and correctness; of arithmetic and his ability to apply its rules to all practical questions; of the use of logarithms and his ability to apply them to questions of practice; of algebra including the solution of simple equations; of geometry, plane trigonometry, and the elements of surveying; also as to his knowledge of geography, particularly in reference to North America, of the outlines of general history, and particularly the history of his own country, and of the Constitution of the United States and the organization of the government under it.

The pay and allowances of officers are the same as those of the infantry in the army. A second lieutenant receives $1,400 per annum; first lieutenant, $1,500; captain, $1,800; and a major, $2,500. The pay of a lieutenant colonel, colonel, and brigadier general is limited by law to $4,000, $4,500, and $5,500, respectively, while that of the grades below these is increased by ten per cent for every five years' service, up to forty per cent, beyond which no increase for longevity is allowed.

Officers may, after thirty years' service and on their own application, be retired from active service at the discretion of the President, or after forty years' service at his discretion, and retirement is obligatory on reaching the age of sixty-four. Officers retired get three-fourths of the highest pay received by them in the grade from which they retired.

The requirements for entering the marine corps as an enlisted man are as follows:

The applicant must be a citizen of the United States or must have legally declared his intention to become one. He must be at least twenty-one years of age but not over thirty-five; at least five feet five inches in height but not over six feet one inch; he must be perfectly sound, well developed, and have good teeth; he must not be addicted to the use of liquor, but must have a good character; he must be able to read and write English, and be unmarried. Boys of fifteen and sixteen years of age may be enlisted, with the consent of parents, as apprentice musicians, and be trained to become trumpeters and drummers.

A private receives besides his board from $12.80 to $42.80 per month according to rank and length of service. In addition to this pay, men who are competent to perform such duties as those of a clerk, painter, carpenter, blacksmith, electrician, teamster, gardener, or plumber, may be detailed

for such duties and, while so employed at shore stations in the United States, receive from thirty-five to fifty cents per day. There are also additional payments made to post-cooks, barbers, gun pointers, etc. A private is allowed during his enlistment about $235 for uniforms and clothing. He is taken care of in case of illness and, if permanently injured in line of duty, is entitled either to a pension or, if he has been twenty years in the service, admission to the Invalid Home at Philadelphia.

The mental training one receives in the marine corps is excellent, and it is impossible to serve one's enlistment without gaining much physically.

When a man wishes to enlist, application should be made to the nearest recruiting office for this branch of the service. After the physical examination the recruit is sent to some one of the barracks where he receives his preliminary training which may last from one to twelve months. He is then placed on a vessel of war, or may be sent to some foreign station. The term of enlistment is four years and at the expiration of that time he may, if he chooses, reënlist — which brings a substantial increase in pay — or he may take an honorable discharge from the service. It is stated that men who have served in the marine corps are considered very desirable as employees in other callings. In the choice of this profession, it won't do to be

influenced entirely by the posters which the recruiting officers display so attractively, as they say hardly anything about the hardships and trials of the service. But I believe that there is nothing that need deter the healthy young man from entering the marine service. It is not all peaches and cream by any means, but probably there is as much fun and interest in it as is found in most callings.

XLV

THE ENLISTED MAN

FOR the young man without a trade or ties of any sort, the army may be looked upon as a good home, in which after enlistment he will always be well cared for. Except in time of war his duty is not hard, nor is he called upon to suffer any severe hardships. Many things, however, are required of him, the most important of which is obedience. He must at all times obey orders from his superiors. In case he thinks an order unjust, it is best to carry out the tenor of it and ask for redress afterwards. He always has an opportunity for that.

The pay of a private is $13 a month after enlistment. This amount is increased from time to time as his term of service lengthens, and for extra duty performed, according to the provisions of the law establishing a standing army. A young man with a fair education, who shows ability to command is always in line for promotion to the position of a non-commissioned officer, which carries with it more pay and some responsibility.

There are excellent opportunities in the army for electricians, telegraph operators, linemen, and men with good knowledge of ordnance and gunnery. Men with good clerical ability may soon find themselves eligible for positions of trust and responsibility in the quartermaster's and commissary departments, and these places afford good salaries.

The pay of the enlisted man in most cases is small, but when the army paymaster gives him his salary soon after the first of each month, it is all his to do with as he pleases. The government furnishes everything that he is required to have. His only real expense is for laundry.

One enlistment of three years in the army will not harm any young man. In many ways he would be better off for the experience gained. He would be likely to get a fund of good health, which would last him through life, and an erect carriage worth thousands of dollars. However, unless he means to remain in the army those three good years of his life could be used to better advantage by working hard with the prospect of having a good profession or trade at the end of that period. He would then be better off than in the army, for his occupation would insure him good wages during life, and probably a comfortable home of his own, which he could hardly have in the army.

XLVI

THE SAILOR

THERE is a grandeur and mystery about the sea that attracts and fascinates boys. And this is not due entirely to the tales of De-Foe, Marryat, and Cooper, for the sea cast the same spell upon the Norsemen long before the days of these great novelists. Nearly every healthy boy has at some time the longing to be a sailor. Years ago some of the best and bravest fellows took up the calling and, going before the mast, rose gradually to the position of captain. They were strong, self-reliant, able men, a source of pride to their families and to their native towns. But that was when we had a merchant marine, and our flag was to be seen on every ocean and in every great port. Today it is a very rare thing for a young fellow to go to sea before the mast. It is looked upon as more or less degrading because of the low, tough, mongrel class of men, which fill our ships. Few native Americans are to be found on them. The crews are made up of every nationality under the sun. The opportunity for

promotion seems to be gone also, although I cannot help feeling that if the right kind of a chap were to go right in and "take his medicine" with the crowd, he would find quite as good a chance as ever. Steam has largely superseded sail as a means of locomotion, but the vessels must have men and officers, and an executive position on our big steamers is one of honor and responsibility.

The main trouble, aside from the decrease in our shipping, is that our youths have become less hardy. They are not seeking for positions of danger and hardship, but rather for the "soft snap," the place where "big money" can be made with little effort. They want to begin where their fathers left off. Even in England, which is a seafaring country, fewer of the native stock are going to sea, and the navy has to be supplied by drafts on Sweden, Norway, and Asia. This suggests to me that the thing to go for is just what every other fellow is fighting shy of. There is actually a dearth of good men of American birth to fill the responsible places on our vessels. In the old days, navigation was taught in the public schools of Portsmouth and other seaport towns (I wonder if it is now!) and boys looked forward with delight to walking their own quarter-deck. Why not do it now? What is to hinder? If good fellows do not go into the merchant service, where is our supply of sailors coming from when war

makes its dread call for volunteers? Would not a bright, intelligent, American-born boy with a common school education stand out as a bright and shining light amid the uneducated Danes, Germans, negroes, etc., who make up the crews of most of our vessels? Would he not be a marked man? Could he not easily obtain promotion to the position of mate, and later win a certificate as master?

There is another attractive phase of work connected with the sea, which calls for good men today, and that is yachting. All summer in our Northern regions, and all winter in our Southern ports, the seas are dotted with the white sails of beautiful and expensive craft, the property of our rich men. These boats have to be manned and officered, and while yachting is nearly all pleasant-weather sailing, there are times when storms spring up and good work is necessary. On most of the large yachts, the captain is hired by the year so that the owner may be sure of his services. His is an easy and pleasant berth, and life on a yacht is far from laborious.

Another field of occupation connected with navigation is on our Great Lakes. Few people realize the enormous tonnage going up and down the lakes during the open season. There are great fleets of able boats, and they have to be manned and officered. In time of war we should

have to look to the lakes for many of our seamen. The drawback about the work on the lakes is that it ends when the lakes freeze up

There may not be as much poetry and romance in a life at sea as there was in the day of Drake, but there is never any lack of incident. The sea is not dull. There is always something doing, and I believe many fine opportunities are every day being overlooked and passed up to foreigners. The Swedes and Norwegians are coming here in droves and are getting all the good things because our boys are looking for " soft snaps."

The sailor's profession produced and it is producing strong men. Just think of what the men of that profession have done for the State of Maine. Some of the ablest leaders of that state were sailors and ship-builders. It seems a pity that our flag has nearly disappeared from the seas and it is not so much the loss of income that I deplore as it is the loss of the breed of sailors. For some peculiar reason Congress is not willing to pass a ship subsidy bill although it seems willing to subsidize, or protect, nearly every other industry. The manufacturer is protected, the farmer is protected and everybody, almost, gets help from the Government except the sailor. Why there should be this discrimination I can't quite understand and I have faith to believe that at no distant date some means will be

found to energize our ship-building trade and to give back to us our share of the carrying trade of the world. If this should prove to be the case there will be an opening there for many a bright young fellow.

XLVII

YOUNG MEN'S CHRISTIAN ASSOCIATION WORK

EACH succeeding age furnishes new conditions of life which open up to young men ever increasing opportunities for activity. In these days of specialists ambitious young men have a much wider choice of professions than had those of former times. The Young Men's Christian Association, organized in England in 1844, has developed such extraordinary possibilities that its work has increased until in 1906 it owned, in this country alone, 550 buildings, with dormitories, restaurants, gymnasiums, swimming pools, reading rooms, school rooms, etc., for the comfort and improvement of men; it numbered over 405,000 members; it owned property free from debt to the value of $37,000,000; and it employed 2,339 men, while 303 vacant places were loudly calling for skilled workers.

The absolute necessity of having trained men to take charge of an organization with the strength of this one is at once apparent. In the early days of the association it was supposed that any or-

dinarily successful business or professional man was quite sufficiently equipped for a Y. M. C. A. position. As the work developed, however, it was found that the average man had an altogether inadequate equipment for the successful conduct of this work.

In the secretarial department, a man must possess education, breadth of view, resourcefulness, unremitting energy, a love for young men and boys, and a spirit of self-sacrifice, combined with a technical knowledge of the best way to reach and help youth accustomed to twentieth century conditions.

There is no class of human beings which so positively demands thoroughly up-to-date methods as do young men. A young men's organization which does not possess sufficient elasticity to quickly, easily and successfully adapt its methods from year to year to meet the ever-changing wishes of ever-progressing manhood, will soon be placed on the shelf as an object merely of historical interest.

It was found that there were no institutions of learning which trained men for this work. Therefore, a Young Men's Christian Association training school was started in Springfield, Massachusetts, where it now has a valuable plant consisting of some thirty acres and several buildings. A few years later a similar school was founded in Chicago

to meet the needs of the Western men. A man planning to enter Y. M. C. A. work today should, if possible, have the advantages to be obtained from a course of study in one of these institutions.

In the physical work the Y. M. C. A. has trained men with such remarkable success that all its investment in men and money has been more than abundantly justified by the splendid achievement of this one department. It has taken physical education out of the hands of the prize fighter and professional athlete and placed a rational, valuable, inexpensive system of physical culture within the reach of practically every man and boy in the land.

It has been truly said that " The young men of a city are its greatest asset — by their labor they create wealth — by their morals they make character — by their standards they determine citizenship, and by their progress they fix our future." There is no work calling for such an overwhelming, all-abounding, and completely possessing enthusiasm comparable to the work of helping form the characters of young men. Anyone with the slightest breadth of vision can see that if he is the means of directing one man so that he will make the best possible use of his opportunities, he will have made his life a blessing.

A young man who enters Y. M. C. A. work, must do it not because he wishes to secure a

position, but because he is willing for the sake of an idea to give his life to a work which promises nothing in the way of future and permanent rewards. It is a work that is truly worth while. It calls for self-sacrifice, for the financial remuneration is not yet adequate; the hours are long, and appreciation from the present standpoint is frequently insufficient for the sacrifice demanded. It may be for these very reasons that its attractiveness to men who have visions of the future is so great. If the emoluments of the office were large and the duties required light, the results of the work would inevitably be most unattractive to such men.

The North American Young Men's Christian Associations in 1906 had 36,293 night school students, 74,478 Bible class scholars, and 153,473 men in the gymnasiums.

To successfully meet the mental, spiritual, and physical needs of men has made necessary a new profession. It is a profession truly honorable, and one which demands the best work of the best men. To a man qualified for this profession its appeal is irresistible. As long as men live, its opportunities cannot be exhausted, and its possibilities cannot fail to fire ambitious workers with unquenchable zeal.

XLVIII

THE PUBLIC ACCOUNTANT

THE time is fast approaching, if it is not already here, when accountancy will be generally looked upon as a profession. Because it has not until recently been so regarded in this country, the person employed as an accountant has not been given a distinctive title like the lawyer and doctor. He has a choice of several titles, namely: expert accountant, expert accountant and auditor, professional accountant, professional accountant and auditor, public accountant, public accountant and auditor, and certified public accountant. In some states it is unlawful to use the title of certified public accountant without having conformed to certain statutes.

"In the seventeenth and eighteenth centuries the profession of the public accountant seems to have flourished more vigorously in Scotland than elsewhere. There are three Scottish societies of chartered accountants, the earliest one dating as far back as 1854. Following in the steps of these

societies the state of New York passed the certified public accountants act in 1896; Illinois passed a similar act in 1903; and Pennsylvania, Maryland, California, Washington, New Jersey, Michigan, and Ohio have done likewise. The requirements in Great Britain and the United States for admission to the profession are very similar. A high school education is necessary as a preliminary. In Great Britain intermediate and final technical examinations have to be passed. In Illinois and New York the intermediate examination is omitted. The papers for the final examinations embrace in all the states, commercial law, practical accounting, the theory of accounts and auditing. In England and Scotland a five years' apprenticeship must be served before the final examination. In New York this period is reduced to one year. The legal training added to the training for accountancy is of great service."

The man who intends to adopt this profession should have an analytical mind and ability to reason correctly. He should have the power to resolve a complicated whole into its component parts and to put these parts together again. It is not necessary that he be a lightning calculator, but he must have good reasoning powers, plenty of patience, and great power of application.

Before going farther it may be wise to describe more accurately a public accountant. His pro-

fession being comparatively new in this country, few people know what his duties really are. From various definitions of a public accountant the following are selected as illustrations:

"A public accountant is not merely a bookkeeper, a statistician, or a man of figures, nor only a good man of business, but to be successful in his profession he must combine all of these qualifications, and in addition have a general knowledge of all industrial undertakings, the forms of accounting most suitable to each, and all the general principles, both economical and legal, which govern them."

"The public accountant is a professional man whose services are devoted to organizing, examining, and reporting upon any and all classes of accounts, with the object of so systematizing them that the maximum information, pertinent to their purposes, may be obtained at the minimum cost of time and effort; of so examining them as to ascertain whether the results shown at any given period are correct and in accordance with all relative facts obtainable; and of so reporting upon them as to furnish his client with a disinterested, impartial narrative of his findings as a result of such an examination."

"A public accountant is a person possessed of a thorough knowledge of the principles underlying business methods and the best ways in which

to express those principles in the books and other constituent parts of the office, so as to make them work together as a harmonious whole, to the end that all information concerning each detail of the business and the grand total of the results may be ascertained with the greatest possible accuracy, promptness, and economy of labor."

"A public accountant is a person skilled in accounts and commercial usages, who offers his services, not exclusively to one or more persons or organizations, but to all who wish to engage him for the purpose of (*a*) auditing accounts; (*b*) making any required examinations of accounts to establish questions of fact, such as assets, liabilities, costs or profits; (*c*) designing, installing, or advising in reference to a system of accounts with forms especially adapted to a given business; and (*d*) giving testimony or advice as to conditions and practices existing in the conduct of business affairs."

These definitions place emphasis upon different branches of the work. While all agree that whatever else the accountant does, he must examine, organize, and report upon systems of accounts, some lay emphasis upon the mere ability to examine and certify the correctness of accounts; others regard the power to advise, and to install systems, as the more important features; still others lay emphasis upon the importance of a

knowledge of business methods, or upon legal knowledge. It is very difficult to describe with accuracy the scope of the accountant's duties. In the practice of his profession he will make audits of all kinds of accounts and papers of persons charged with the care of money, stores, etc., to test the honesty and efficiency of employees, to show the profit or loss, and to determine soundness of policy. He will prepare prospectuses of commercial undertakings, devise systems of accounts, etc.

" Weakness of corporate direction is frequently the division of control, but corporate undertakings have their advantages as well. They make it possible for the small investor to become a partner in a remunerative business, but if he is to be induced to do this, he must be satisfied that his money will be honestly and efficiently used. He has neither the time nor the knowledge necessary to enable him to look into these matters for himself. Who is there so well fitted to guard his interests as the certified public accountant, whose experience makes him an expert authority on these questions? "

I have stated the mental qualifications of a public accountant; he must be strong morally also. Think for a moment of the temptations that beset him, of the great inducements which may be offered him to betray the interests of his clients,

especially if his report will influence — as it often does — great amounts of capital. He is, in a measure, a servant of the public and should feel that he is discharging a public duty; and he must, therefore, place his professional honor, his duty to his client, and loyalty to his sense of right and truth before any other consideration.

"Centralized control of scattered properties under the ownership of a holding company is a comparatively new proposition. In organizing these great companies the services of the public accountant are indispensable. In order to be able to do this work the accountant must, perforce, understand the details of the business, and this requires deep study and close application. The accountant who has not kept in touch with the requirements of the day finds his occupation gone. Merely accurate bookkeeping will not answer. The business man, especially the man at the head of large enterprises, expects that the accountant will furnish him expert opinions as to the progress and status of his affairs. And to the manager whose aim is efficiency to the neglect of economy the accountant can show how efficiency is over done, and to the manager whose strong point is economy he can show that small pay rolls, or the working of worn out machinery, is bad policy. The surgeon does not attempt a difficult operation until he has matriculated in the medical

college; until he has attended clinics; until he has assisted his seniors; and until he has passed through all the other elementary stages of professional training. So the accountant must ground himself in the elements of his profession by study and by holding the tools for his senior."

If a young man wishes to become a public accountant, he should thoroughly master the principles of double-entry bookkeeping. He should get sound practical experience by actual work upon the books of some business. It matters little what the business is, provided the owners watch it closely and their books are kept by double entry. A knowledge of single-entry bookkeeping won't harm one, but it is unnecessary to spend much time in getting that knowledge. Let us assume that the man has made the most of his first employment and feels that he thoroughly understands the accounts — he has an opportunity to enter the bookkeeping department of another line of business — he accepts it and thoroughly masters the new methods of accounting and doing business. He has now acquired some intensely practical experience and enjoys his work. The study of accounts and all that has to do with them, and all the forms used to express the financial results of conducting a business as drawn from accounts, now prove fascinating. During this time of acquiring experience he has read

books upon accounting, auditing, and business methods, which were both interesting and instructive. He now decides he is capable of assisting a public accountant in his various lines of work. He should go to him and ask for an opportunity to demonstrate that he is the man needed. What can he expect to receive as a money compensation for his work? As an assistant of a public accountant, from $5 to $25 a day — the amount depending upon his ability and upon the business.

XLIX

FORESTRY AS A PROFESSION

IF a young man has a strong physique, a love of nature and the wild, and is willing to forego the excitements of city life, as well as the struggle for a fortune, he may find in forestry not only a very useful, but also a congenial career. It has many attractions, some severe and trying hardships, but does not usually lead to a large income. Forestry has been a neglected science in this country. Only within the last decade have the people begun to realize seriously that one of the nation's chief resources is passing away, and that if we are to continue having wooden houses, furniture, tools, and paper from pulp, in anything like their present abundance, the forests must be protected and replenished.

To do this intelligently requires expert training. The forester must be well grounded in mathematics for he has to survey woodlands accurately, and estimate their value correctly. Upon his findings depend the transfers of forest property to the value, it may be, of hundreds of thousands of

dollars. He must be a biologist and botanist in order to understand how trees grow, and to turn the forest into useful instead of useless growth. With the long time element involved in growing trees, his errors at the beginning are likely to prove very expensive in the end. He must be geologist enough to understand the formation and character of forest soils. Upon his knowledge of entomology may depend the saving of vast areas of trees from insect pests. He must be sufficiently qualified as an engineer, to build dams and bridges in the roughest possible country, and to run a sawmill under adverse conditions; as a lawyer, to make contracts far from towns in which lawyers dwell; as a doctor, to heal the ills of his lumber crews, far away from the skill of medical men; and, as a business man, to place his product upon the market in an acceptable form at a propitious time. In view of the various things a forester has to do, and of the vast importance of the vanishing forest to our civilization, it is not surprising that Yale and Harvard and the University of Michigan have established fully equipped schools of forestry in their university systems. There is a school for training foresters on the Biltmore estate in North Carolina and one for training forest rangers recently established by the state of Pennsylvania. Many of the state agricultural colleges, as those

of Maine, New Hampshire, Massachusetts, Minnesota, and California, have special courses in forestry, and nearly all give some attention to it. Many of the states have recently created by law the office of state forester with an expert in the position.

Up to the present time the demand for foresters furnished by the several forest schools and colleges has exceeded the supply, which is chiefly due to the remarkable development of the forest service of the federal government at Washington. By the proclamations of four successive presidents, more than 100,000,000 acres of land in the West, a territory larger than all New England, has been set aside as national forest reserves. Last year Congress appropriated to the forest service $1,000,000 to be used in the development and proper care of the reserves, and in the extension of intelligent care for forest lands throughout the country. Some of the finest young men in the land, quick in mind and earnest in purpose, have gone into the forest schools, and from them into the forest service, either for the federal or state governments. Others have been employed by forestry associations, and still others by the owners of large forest estates. The young man who goes into forestry as a profession will find good company, and will have to lay a broad, strong foundation in useful knowledge before he can hope to

compete in the race. The Yale Forest School, which is the best equipped, requires even that one must be a college graduate before entering its courses.

Forestry as a profession takes one for long periods away from his family and friends; it leads him for days together into the swamp and thicket, where cold or heat must be endured without respite, as well as upon broad mountain slopes and along beautiful waters. It requires a stout heart and an honest brain that can bear the burden of difficult work in distant woods without flinching. No dandies or dilettanti need apply; but to the strong young man, who knows both his capacity and his desire to escape the stress of cities, to the man who can bear large responsibilities, forestry offers a useful and moderately remunerative career. Such a man is likely to be an independent, conservative, patriotic citizen. Indeed, a fine American spirit may be developed in the profession; and it is, perhaps, significant that Jackson, Lincoln, and Roosevelt, three of our most vigorous and picturesque leaders, were all practical woodsmen.

L

LUMBERING

THE business of lumbering requires for success no less careful preparation than business along other lines. Although today courses in forestry afford excellent preparation, until recently the business could not be learned in any school except the school of experience.

One might, of course, secure a knowledge of mathematics, mechanics and business forms by study, but to take advantage of market conditions and to change the product all along the line from the trees in the forest, through the mill, to the manufactured article in the distant city, required both experience and that peculiar ability which is the instinct of a successful business man.

Recently an attempt has been made to raise a fund for the endowment of a chair of practical lumbering at the Yale Forest School and the work has already been started under the direction of a committee of lumbermen. In addition to lectures and class work conducted by practical lumbermen from different parts of the country, field work is

taken up in such a way as to afford instruction along a line of usefulness which has formerly been gained only after a number of years of experience.

Many engage in lumbering on a small scale, having portable sawmills. Even this requires judgment in estimating timber, a knowledge of woodcraft and ways of running a mill, and ability to handle men and dispose of the product of their labor. These small operators are often successful, because of the constant advance in the prices of timber. During the last fifty years prices have increased on the average of two per cent. per annum; during the last ten years the advance has averaged ten per cent.; and it has very recently been fifty per cent. annually, in some grades of lumber.

Some of the factors which have favored the development of great lumber companies with far-reaching and complex systems of business are:

1. The extraordinary increase of population requiring enormous supplies of wood for houses, furniture, and tools.

2. The distance of the great forests from market, and the ignorance of the people of their condition and value. Nearly all of the states, as well as the federal government, have been prodigal in their haste to dispose of timber lands without adequate return. Therefore timber that has been, and to some extent is still, one of the

nation's greatest resources, has not yielded to the states and the nation the benefits that should have been derived from it. The advantage has gone very often to those individuals who were sufficiently shrewd to foresee its value, and to secure it from the government. In many of our cities, particularly in the middle and far West, the basis of great fortunes has been in lumbering.

3. The difficulty is in finding persons of requisite skill to manage large affairs, not only in the distant forest where woodcraft is necessary, but also at the mill at the market end of the line. The possession of these somewhat unrelated abilities has an extraordinary value. Lumbering like every other business requires capital. It requires also foresight in the acquisition of large tracts of forest land, and ability to manage crews of men in the woods far from supplies. He who has these talents need not sell them too cheaply.

There are many difficulties: The stand of timber may fall short of the estimate; distant boundary lines hard to establish may lead to lawsuits; efficient labor in the woods is increasingly hard to get; log-driving is an expensive undertaking; unusual skill and management of details are required to make a sawmill run economically and for this alone one needs to be a practical mechanic; there are difficulties in stacking, drying, and shipping timber; there are rates to be made

with the railroad; there are fluctuations in the market; there is the matter of credit and distant collections. And yet, because large tracts of timber are so often secured for small, even nominal sums, and because of increasing demand and advancing prices everywhere, a large proportion of lumbermen are successful.

What is the future of the lumber business? Some of the factors mentioned above are undoubtedly permanent. While it is not probable the state and federal governments will in the future give away vast tracts of timber for a song, enabling the recipient to get rich by simply taking the public resources, yet the nature of the business must remain complex, and those will succeed who are capable of handling it. The increase of population is not likely to be less rapid. The demand for lumber, therefore, will continue steady.

Substitutes for wood may, indeed, be found. Some great chemist may yet solve this problem. A larger use of stone, brick, concrete, asbestos, and the metals is probable in this country as in Europe. But just now there appears to be no escape from the advancing prices in wood values. For the present the lumber business is secure.

LI

CONTRACTING

IT is only within the last few years that contracting has been given a place as a profession. And it is only because, — in the enormous advance in recent years of the great and intricate construction necessary for our present civilization, — engineers have gone into contracting, that it can be recognized as a profession.

Twenty years ago a successful contractor was generally a man brought up from the ranks, who knew how to handle men, who had great energy and force in his general make-up, and who used these qualifications in getting good men and then making them work. Today, machinery and organization do the work, and the successful contractor is the one who has the brains to determine the right way for the work to be done, to devise the proper machinery and plant, and to supplement these with an organization suitable to do the work cheaply and well.

As a profession contracting is one with great requirements: first and greatest, good judgment

and common sense; in addition, a technical training, ability to handle men and to quickly decide how to meet emergencies; and last, a business training.

A technical training is a necessity, and an engineering experience after such training is of the greatest value to a contractor. The temporary work needed requires great judgment to get the structures strong enough to do their work for a short time — and only so strong, for in such works is often great expense, which must be kept as low as possible. Again, in studying plans, often very intricate, and in dealings with the engineers of the work, the contractor who is an engineer of experience can often see in results obtained the value of his training.

When work is carried on away from headquarters and, in some cases, from civilization, a man is thrown on his own resources for all of the above-named requirements. He has not a machine shop nor a sawmill at his elbow nor the resources of a big city at hand and must, in cases of breaks in machinery and plant, devise some way to keep things going. Again, he must handle strikes, for the sake of the work and also for the best interests of his employer. He has to buy all material and supplies, and in fact run a big business outfit, and keep accurate account of everything done and everything received.

Success means only one thing — to make money, for in all work today the contracts and specifications are so rigid and the inspection is so close that the work must be well done in any case, and so, to lose money is to fail, for contractors are not in business for love or for charity, and in this respect are different from most professional men, with whom a failure can often be attributed to an act of God, the stupidity of a jury, the greater ability of an opposing lawyer, or to the perversity of human nature.

The greatest element in the civilization of today is transportation, and nothing stops man in his efforts to get quickly and in the most direct line to his destination. He comes to a river and he spans it, a mountain and he bores through it; where water is needed to make commerce easier, he constructs canals to carry it; where streets do not accommodate the people, he builds subways and elevated roads.

The doing of all this work brings to a young man of constructive and executive ability much pleasure and satisfaction. The work is out of doors, so the life is a healthful one; in places of all sorts, and with men of all classes — from the ignorant Italian shovellers to those whose labor is the most skilled; and with engineers, and town, city, and state authorities; so that among them all are great chances for studies in human nature.

Contractors must fight with the elements, with the tides, the winds, and the floods, and they never can tell how badly any of them may act. They must have courage to cope with the sea, the rivers, and the mountains, never getting discouraged when failures come, but always keeping in mind the thoughts: It must be done; if I can't do it, someone else will; if it cannot be done in one way, I must try another, and keep trying until the work is completed.

And at the end, when troubles are over and the work is done, there is great gratification in having held back a torrent by building in its bed a dam of stone from its own valley; in having pierced a mountain so that the commerce of man in its rush to its destination can pass through; in having brought from mountain lakes the pure water for the use of a city; or in having spanned a river with a great bridge. Such triumphs of engineer and contractor, working hand in hand, are the greatest achievements of our modern times.

LII

THE CHAUFFEUR

THE work of the chauffeur has certain features very attractive to the boy with a mechanical mind. The machinery of the automobile, with which he comes in contact, is of fine quality and responsive to good handling. His life is largely out of doors, and he has an opportunity to see a great deal of the country. His pay is good, ranging all the way from $40 to $150 per month, and frequently the acquaintance formed between the employee and the employer leads to advancement along other lines.

There is, however, another side to the picture, — the young man is brought into contact with people who are spending money at an extravagant rate; he learns to value the dollar very lightly, and his companions are frequently people who are leading a rather fast life, with a copious use of stimulants and tobacco. His views of life and his manner of living are likely to be a copy of his master's, and unless he is a fellow of considerable character it

will be difficult for him to ignore the example set him, which is not always the best. Chauffeurs, as I have observed them, are apt to be rather wild and reckless, whereas their calling demands that they be just the opposite.

In order to become a good chauffeur, one should go into a shop where the machines are made and take a regular course in shop work, and should study carefully the mechanism of the particular machine which he is to operate. Too much stress cannot be laid upon the necessity of having a thorough understanding of the machine in its every part. If a man can serve an apprenticeship in a machine shop or at some mechanical trade before taking up this work, it is, of course, a great advantage. I have known men who have been firemen, locomotive engineers, stationary engineers, and machinists to take up this calling and make very good chauffeurs. After taking a course in shop work it would be a good idea to attend one of the schools for chauffeurs, which are to be found in nearly all of our great cities. The Y. M. C. A. has a good many such schools at various points, where the technical parts of an automobile are fully explained and the theory of managing one carefully taught. After having finished this course one must get an opportunity to learn to run a car under some experienced teacher, and time will do the rest. Besides preparation, the

requisites for a good chauffeur are steady habits, a love for, and an understanding of machinery, a quick eye, a firm hand, and adaptability to unforeseen circumstances.

LIII

THE CITY GUIDE

EVERY day at a certain hour, a man with a gray beard walks down the street on which my office is located, holding straight up in the air, like a marshal's baton, a rolled up umbrella. He is followed by a procession of men, women, and children of all ages, numbering from ten to fifty. When opposite my office he stops, gathers his audience about him, and points out the birthplace of Benjamin Franklin, which is just next door. He talks to the crowd about three minutes, and then, with umbrella held aloft, passes on down the street to some other place of historical interest. Just what he tells them about Benjamin I do not know, but they seem to enjoy it, and he nearly always has a good party.

His plan, I believe, is to advertise to start from a certain point, say the Park Street church, at 10 o'clock each day, and accompany any who may wish to see Boston's points of interest and who are willing to pay him a fee for his service. The object of the umbrella is to indicate his position

in the crowded streets, so that his flock may not stray away. He must receive a very good income for, if each pays a half dollar, the sum total per day would be very satisfactory.

The work of the city guide requires a knowledge of local history, an acquaintance with the historic spots, a good voice, an ingratiating manner, and a pair of good feet. It is not a calling with a future, but it holds out a good income and it might be used by a young man as a means of gaining a living while he is fitting himself for something more permanent.

LIV

THE ATHLETIC INSTRUCTOR

FOR centuries English boys have been trained bodily as well as mentally, and the result is a race of large-framed, deep-chested men. It is only within the last twenty-five years that we have begun to give attention to the systematic bodily training of our boys. Now, every college has its trainer, and every preparatory school, every high school, has its "nine" and "eleven," and even the Y. M. C. A. has taken up athletics and no properly equipped Y. M. C. A. building is without its gymnasium and trainer. I may be deceived, but I think the rising generation, as a result of this training, is taller and better developed. There is of course danger of its being pushed too far, but we always go to extremes in everything we pronounce good.

Now, as every college, preparatory school, and Y. M. C. A. requires an athletic instructor, or rather an instructor in athletics, one will see that there is a constant demand for trained men in this line. The Y. M. C. A. supplies its needs by

running a training school where men are turned out to order. The colleges and preparatory schools are apt to pick up a professional, — an old oarsman, prize fighter, or what not. These men are generally of a low order of intelligence and their training is not productive of a high standard of ethics as regards sport They train only to win, no matter how or at what cost. They do not know what sport for sport's sake is.

I expect that class of men will be entirely abandoned in the near future, as a higher standard is already in sight.

The colleges and preparatory schools are ready to pay very good salaries indeed to good men, — ranging all the way from $1,000 to $6,000, with board generally in addition. While there is no great future in such a job, a man can get a good living, have a healthful outdoor life, and if he is provident lay up a good deal of money. Besides, he will be associating with a lot of fine fellows.

I have said a good man can get a good salary, but he must be prepared and trained for it, and know his business. Just because he was stroke of his crew, or captain of his eleven, he is not necessarily competent to teach others. He must know, not only how to row, how to circle the end, how to slide to third base, how to do the giant swing, but how to control boys, how to train them, how to feed them, how and when to be stern and un-

yielding, how and when to relax and be easy. He must have an understanding of human nature in the making; he must have tact, readiness, persistency, honesty, and self-reliance.

THE END.

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